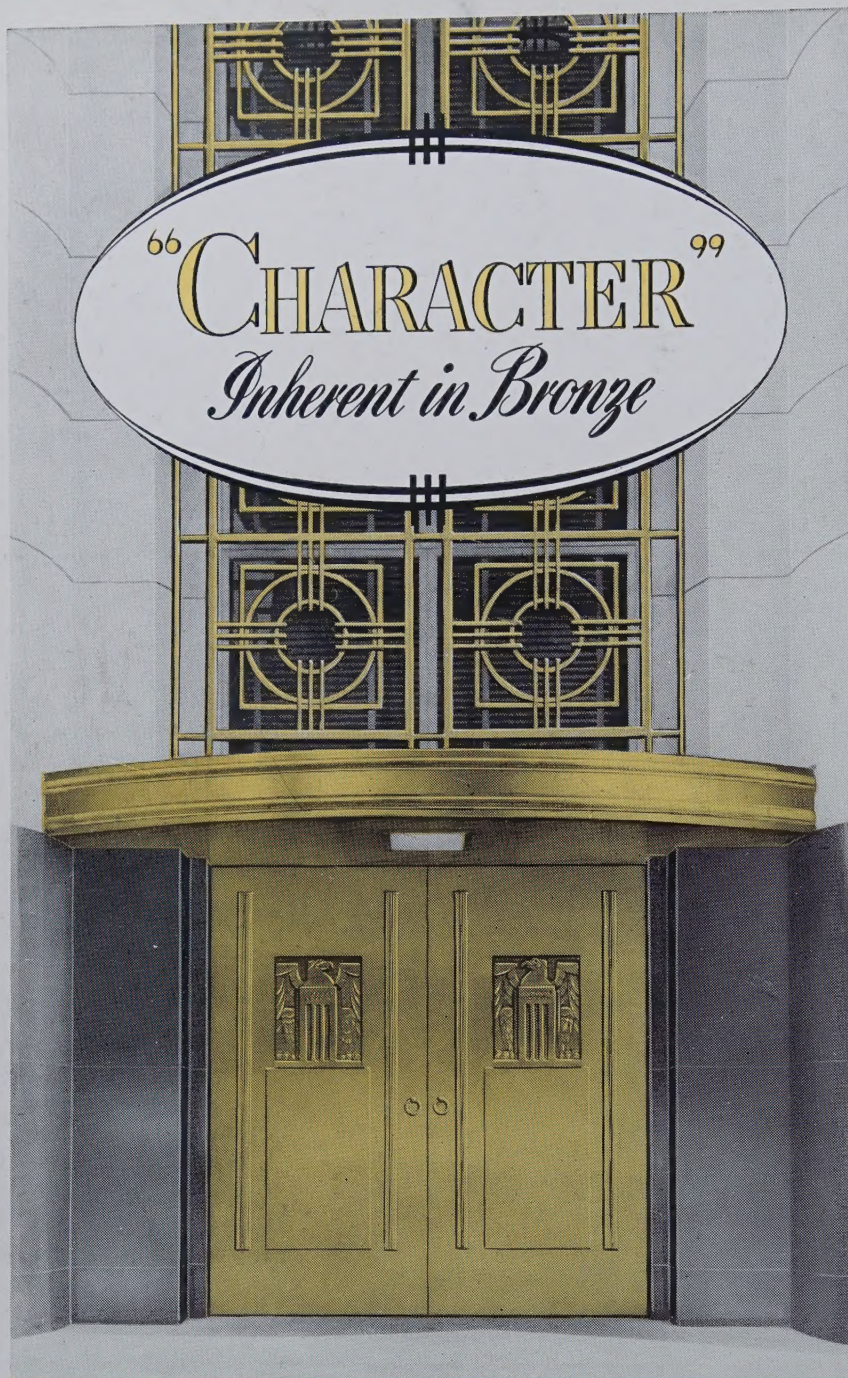


PENCIL POINTS

JUNE

1941



These photographs show the Anaconda Extruded Architectural Bronzework on the new building of the Victoria Bank and Trust Company, Victoria, Texas. The continuous bronze grille extending upward five stories above the Main Entrance is believed to be the largest single frame in the country. The Benson Manufacturing Company of Kansas City, Mo., executed the entire bronze installation Architects—C. H. Page & Son, Austin, Texas.



A glance at the illustrations reveals how the impressive "character" motif of this bank building is carried out by using Anaconda Architectural Bronze. At the same time, the air of charm and distinction it lends is also apparent. But there's more to bronze than appears on the surface.

Besides its beauty and remarkable adaptability to design, bronze offers the double economy of durability and easy maintenance. The fact is, only occasional cleaning is necessary to maintain its original lustre. And beyond that, its moderate cost is a further reason why so many leading architects specify this ageless metal.

The American Brass Company is the leading supplier of Architectural Bronze, Copper and Nickel Silver in all wrought forms for ornamental work of every description.

4184

FOR ORNAMENTAL WORK

Anaconda Bronze



THE AMERICAN BRASS COMPANY General Offices: Waterbury, Connecticut • Subsidiary of Anaconda Copper Mining Company • In Canada: ANACONDA AMERICAN BRASS LTD., New Toronto, Ont.

PENCIL POINTS, published monthly by Reinhold Publishing Corporation at 258 Atlantic St., Stamford, Conn. Publication office, Stamford, Conn. Editorial and Advertising Offices, 330 West 42nd Street, New York, N. Y. Yearly subscription \$3.00, single copies 50 cents. Entered as second class matter, March 10, 1930, at the Post Office, Stamford, Conn., under the Act of March 3, 1879. Volume XXII, No. 6, Dated June, 1941.

This is one of a series of advertisements telling what leading Consulting Engineers think of modern steam heating.

Albert L. Baum, of Jaros, Baum & Bolles, New York Consulting Engineers. B. A., M. E., Columbia University. Member of American Society of Heating & Ventilating Engineers.



"Economy is the watchword of all good planning—economy in installation costs as well as economy in operation," writes Albert L. Baum. "With this in mind, we have planned for controlled steam heating systems in many of our designs, and have found such steam heating systems especially successful in small rural hospitals. The outstanding advantages, particularly for hospitals, of such controlled steam heating are the variability of heat output as required by weather changes and the quick response to heating demands coupled with the savings in steam consumption."



Jaros, Baum & Bolles have specified modern steam heating for many prominent installations, among them the Delaware Hospital, Wilmington, Del., and the Holston Valley Community Hospital, Kingsport, Tenn., both of which have "Controlled-by-the-Weather" Webster Moderator Systems of Steam Heating.

WARREN WEBSTER & COMPANY, Camden, New Jersey
Pioneers of Vacuum System of Steam Heating
Est. 1888 : : Representatives in 65 U. S. Cities

**STEAM Heats
America**

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ZURN SERVICE AT WASHINGTON, D. C.

To help you avoid inconvenience and delays in getting approvals on your building projects, and changes in specifications, as far as they concern building drainage, we maintain a staff in Washington, D. C. This staff is thoroughly experienced in interpreting U. S. Government requirements on building drainage. They are fully qualified to promptly contact the proper U. S. Government department heads and to provide information and assistance in interpreting and estimating Government building projects as they concern building drainage. Feel free to utilize this time-saving Zurn Service at Washington, D. C. Write, wire or telephone—

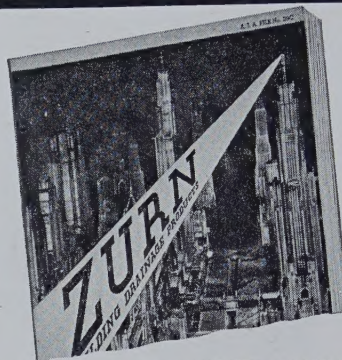
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1101 Vermont Ave., N. W. • Phone: Republic 4948
Washington, D. C.

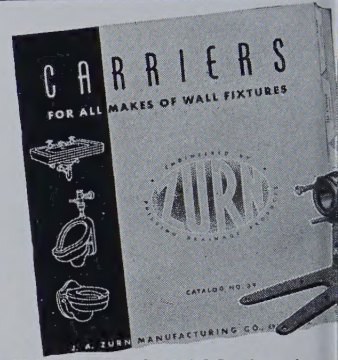
**ANOTHER ZURN SERVICE TO
ARCHITECTS, SPECIFICATION MEN,
CONSTRUCTION ENGINEERS AND
CONTRACTORS ENGAGED ON
BUILDING FOR NATIONAL DEFENSE**



Zurn provides this Catalog of Building Drainage Requirements approved for use in the construction of buildings in all departments of the U. S. Government . . . also for use in buildings required especially for the production of National Defense equipment and supplies. Minimizes possibility of error and simplifies specification of building drainage products for all types of U. S. Government buildings.



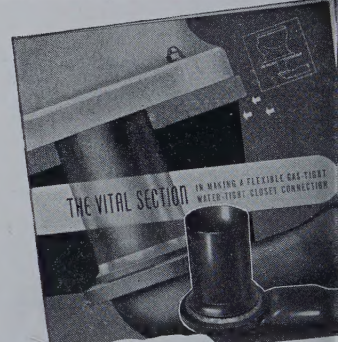
ZURN CATALOG OF BUILDING DRAINAGE PRODUCTS. Gives complete details, specifications, dimensional drawings, sizes, types, uses of Zurn Building Drainage Products.



ZURN CARRIER CATALOG. The only complete and authoritative book ever published on carriers for supporting all types and makes of Wall Fixtures.



ZURN ROOF DRAIN FOLDER. Presents roof drains for every type of roof construction. Illustrates and describes basic types and recommended applications.



V-E-L CLOSET CONNECTION FOLDER. Shows type of closet connection employing lead cast iron in same unit. Dimensional drawings, unique features, and range of types.



ZURN OIL INTERCEPTING DRAIN FOLDER. Presents exclusive features. Gives installation recommendations, capacities, dimensions, tables and drawings.

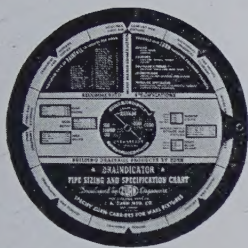


ZURN BATH TRAP FOLDER. Shows basic types of Zurn "self-cleansing" Bath Traps. Dimensional drawings, and features includes new adjustable type trap.

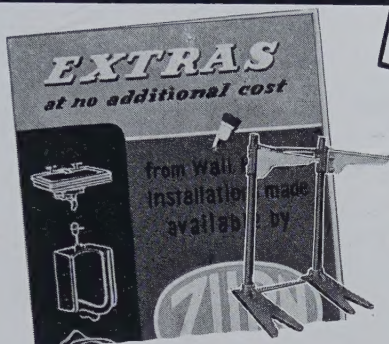
Specify ZURN

Service Simplifies

IFICATION and INSTALLATION E ON ALL TYPES OF BUILDINGS



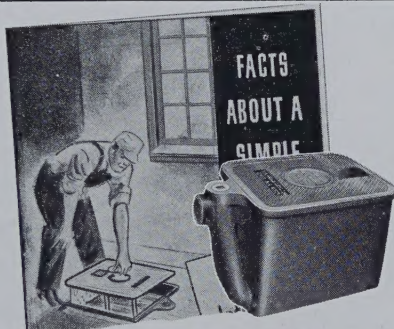
DRAININDICATOR. A pipe sizing and specification chart that puts answers to many building drainage calculations at your finger-tips instantly.



CARRIER FOLDER. Shows 5 basic types of Zurn Engineered Carriers and applications. Explains and illustrates "Extra" functional and installation advantages of these Carriers.



GREASESEPTOR LITERATURE. Authoritative data on grease interception. Recommendations for specifying various sizes of grease interceptors. Includes installation drawings and data.



FACTS ABOUT GREASE INTERCEPTION. Explains and illustrates basic physical principles of grease interception. Zurn Greaseceptor information and performance facts. Ready-to-use Specifications.



FLOOR DRAIN FOLDER. Presents new of continuous flow solids retaining floor drains, floor and area drains, backwater sewer valves and essential specification data.



ZURN FLOOR DRAINS AND ACCESSORIES. Shows how 178 drains to meet widely varying floor drainage requirements can be derived from three basic types of Zurn Floor Drains and accessories.

15 examples of Zurn Engineering Service provide you with a valuable fund of authoritative and ready-to-use building drainage information . . . specification data, recommendations for use, detail drawings, product information and prices—all in instantly accessible form and FREE upon request.

Equally accessible is the vast reservoir of Zurn Engineering experience and resourcefulness gained in over 30 years of working with architects, engineers and contractors in solving building drainage problems in every type of building.

The information contained in these Zurn catalogs and product circulars is most valuable if you have it, when you need it. Be sure you have a copy of each in your working files. Just indicate on the coupon which of them we should send you.

Zurn Engineers are continually developing new devices for building drainage to afford greater protection of people, property and goods.

J. A. ZURN MFG. CO.
Sales Office and Factory, Erie, Pa.

ZURN ENGINEERING SERVICE Immediately Available to You Through Zurn Representatives in These Cities

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Please send me the literature on Zurn Building Drainage Products as checked. (Please attach to your business letterhead).

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| <input type="checkbox"/> Zurn Roof Drains | <input type="checkbox"/> Zurn Floor Drain Folder (200—300—400 Series) with Accessories |
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Yours to Command

... the greatest
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in the world

ON the day that you are designated architect for a school, church, theatre or auditorium, certain new and unusual problems will confront you.

You'll begin living with such problems as sight lines, floor slope, seating arrangement. For the seating in these buildings is an important item in the plans.

But on that day you can command the experience of the largest organization in the world devoted exclusively to public seating. You can (without obligation) draw upon all the research, testing and engineering that has been done by the American Seating Company, America's pioneer in comfortable public seating.

We've been at the right hand of the best architects in the business—advising them, helping them to iron out their public seating problems. We'll be on the job with you, too, any time we can be helpful.



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World's leader in public seating • Manufacturers of Theatre, School,
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Branch Offices and Distributors in Principal Cities

ALUMINUM, DEFENSE, AND YOU



3

IT IS EASY TO UNDERSTAND ABOUT ALUMINUM AND DEFENSE

THE WHOLE THING BOILS DOWN to two simple questions:

1. How much aluminum are America and England going to need?

There is only one answer: The democracies must have *all the aluminum it takes to win*, and nobody knows how much that is.

2. How fast is aluminum needed?

We don't know, for sure, but just as fast as the aircraft plants, munition plants, shipyards, and the like, can be expanded to use aluminum and other materials for defense purposes.

THOSE IN AUTHORITY IN WASHINGTON are putting together, day by day, expert estimates of what all these defense industries are going to need, month by month, clear to the end of 1942. These estimates, as issued, are our book of rules.

FOR MONTHS WE HAVE BEEN, and are now, delivering aluminum for defense purposes far in excess of that called for by prior estimates.

DEFENSE IS NOW TAKING from us over 40 million pounds a month. Every American ought to have a picture of just how much aluminum that is; here it is:

Peace-time America, during the nine years from 1930-8, could find use for only 14 million pounds a month from us.

In the busy year of 1939 we had to make only 27 million pounds a month to satisfy the civilian needs of this prospering country.

Suddenly, defense alone needs 40 million a month! 14 million (civilian), to 27 (civilian), to 40 (defense) and soon to 50 and beyond!

★ ★ ★ ★

YOU CIVILIAN USERS of aluminum are grand people.

THE WAY YOU ARE DOING WITHOUT aluminum until producers can catch up again with civilian uses is typically American. We are sincerely grateful for your understanding.

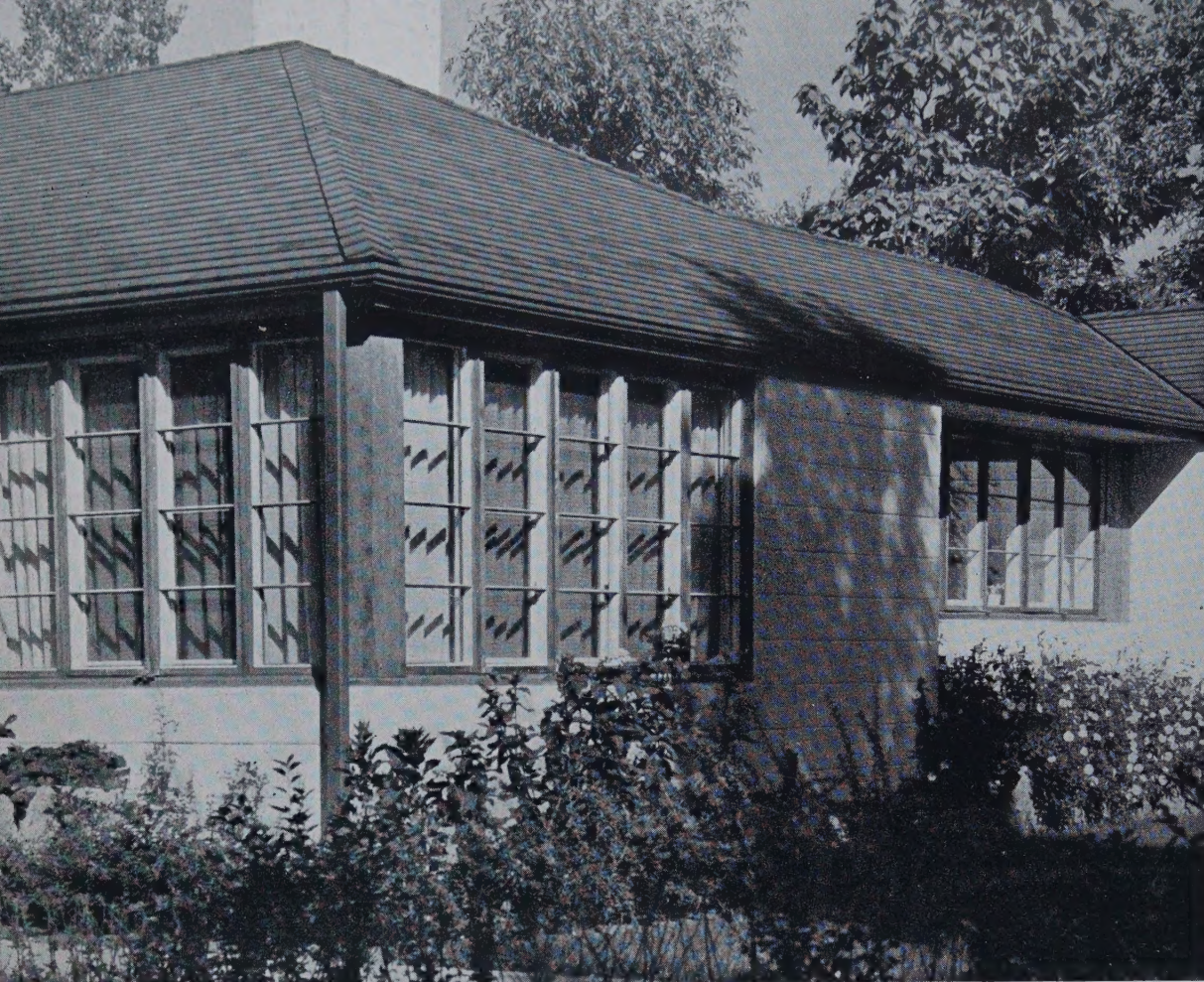
IN THIS RECESS you are having to scramble for **RECESSITIES**—other materials which just don't fill the bill 100%, because there is no pat substitute for aluminum.

IT'S TOUGH ON YOU and it's hard on us to have to turn away temporarily from the friends and pursuits of a lifetime.

WE HAVE NOT TURNED OUR BACKS!

WE INTEND that no civilian shall have to forego the things aluminum can do best one minute longer than we can help.

ALUMINUM COMPANY OF AMERICA



*THIS IS ONE OF
A SERIES OF OUT-
STANDING
HOMES DESIGNED
BY ARCHITECTS
IN WHICH AN-
DERSEN LIFE-
TIME WINDOW
UNITS HAVE
BEEN SPECIFIED*

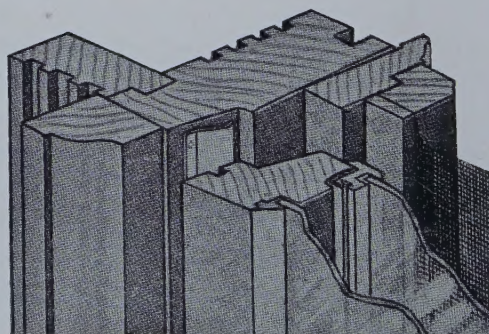
Architects:
FROST
and
LOFSTROM

THIS WELL FENESTRATED HOME IN LITCHFIELD, MINNESOTA, HAS LARGE CORNER WINDOWS FORMED BY MULTIPLE INSTALLATIONS OF ANDERSEN CASEMENT UNITS



CORNER WINDOW, REAR OF HOUSE

Minnesota homes must be built to withstand the rigors of extreme cold and of extreme heat, since the annual range of temperature is usually more than 130°. The design of this home called for very liberal window areas, making weathertightness a paramount consideration. The architects solved this problem successfully by specifying the most weathertight window available in standard stock sizes today—the Andersen Lifetime Wood Casement Window Unit.



SECTION THROUGH
JAMB SHOWS SILVER
SEAL METALANE
WEATHERSTRIP,
ANCHOR STRIP AND
WINDBREAK, TWO-
POINT CONTACT
SASH, DOUBLE
GLAZING AND
INSIDE SCREEN

FOR FURTHER INFORMATION, SEE SWEET'S ARCHITECTURAL CATALOG,
SECTION 15, NO. 24, OR WRITE BAYPORT FOR DETAILS

Andersen Corporation

BAYPORT • MINNESOTA





3470 PEOPLE

WERE INTERESTED IN PREVENTING *damp* BASEMENTS

Mr. and Mrs. America want dry basements. As a sample of their interest in the subject, we reproduce a quarter page advertisement recently published in a home magazine that produced 3470 inquiries wanting to know how to prevent dampness in new and existing basements. This certainly indicates that there are thousands of damp basements and we suspect that many are in homes designed by architects.

It's to your interest, Mr. Architect, as well as ours to prevent these damp basements. You specify and we'll provide the material that will prevent them

—and the cost is very low. The specification of Medusa Waterproofing, that is Medusa Waterproofed Gray Portland Cement or if not available, Medusa Concentrated Waterproofing Paste or Powder, in all concrete and mortar and as a plaster coat, stops these damp basements. Existing basements can be waterproofed by using Medusa Waterproofing in floor topping and as an interior wall plaster.

These Medusa Waterproofings line the pores of the concrete or mortar with a waterproofing material that repels all water at the surface. The coupon brings a copy of the informative book, "How To Make Good Waterproofed Concrete."



MEDUSA WATERPROOFINGS

MEDUSA  Waterproofing



HOW to prevent DAMP BASEMENTS

Damp basements are so unnecessary. Basement walls and floors that are always dry make a useful, liveable basement. Concrete, mortar or plaster coats made with Medusa Waterproofed Portland Cement repel all water at the surface and assure dry basement walls and floors. If you are building a new home, insist that your builder use Medusa Waterproofed Portland Cement in all concrete and in mortar for laying up masonry units. Dampness in your present basement can be overcome by using Medusa Waterproofed Portland Cement as a plaster coat on the walls and as a floor topping. Coupon brings booklet "How To Make Your Basement Beautiful and Dry" with details.

MEDUSA PORTLAND CEMENT COMPANY
Medusa Waterproofing also made in Canada by
Medusa Products Co. of Canada, Ltd., Paris, Ont., Can.



Damp, dirty basements
can be made into beautiful,
liveable rooms with
the help of Medusa
Waterproofing.

MAIL THIS COUPON NOW

MEDUSA PORTLAND CEMENT CO.
1030 Midland Bldg., Dept. W, Cleveland, O.
Please send free copy of "How To Make
Your Basement Beautiful and Dry."

Name.....
Street.....
City..... State.....

MEDUSA PORTLAND CEMENT CO.

1004 Midland Building, Department E Cleveland, Ohio
Gentlemen: Please send me a copy of the book, "How To Make Good Waterproofed Concrete."

Name.....Address.....

City.....State.....

Medusa Products also made in Canada by Medusa Products Company of Canada, Ltd., Paris, Ontario



Raymond has successfully completed over 9,500 contracts in 44 of the 48 states in the United States and in many foreign countries. The scope of Raymond's activities includes every recognized type of pile foundation — concrete, composite, precast, steel, pipe, and wood. Also caissons, construction involving shore protection, ship building facilities, harbor and river improvements and borings for soil investigation. Whether your projects are large or small, nearby or distant, your inquiries will receive prompt and careful attention.

44 YEARS OF SUCCESSFUL EXPERIENCE

RAYMOND
CONCRETE PILE COMPANY

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140 CEDAR STREET • NEW YORK, N. Y.

THE THRESHING FLOOR

J. C. RUNYON, *Consulting Engineer of Falls Church, Virginia*, applauds one of our May letters in the most convincing way possible — by citing an actual example! Perhaps others can attest the correctness of Mr. Gillette's reasoning.

With reference to your issue of May 1941, page 9, "The Threshing Floor," letter by C. H. Gillette, Meriden, Conn.: this letter is well founded and it will probably be of interest to Mr. Gillette and to your readers to know that just this plan was used on a 40-story building in 1932, to the complete satisfaction of the owners, architects, engineer, contractor, and manufacturers of equipment.

It resulted in a building that today is still modern, with astonishingly low maintenance during the interval.

FRANK W. BAIL, *head of an architectural and engineering firm with offices in Pittsburgh, Cleveland, and Fort Myers, Florida*, assures us that Dr. A. D. Taylor knows whereof he writes monthly in the *Washington Defense Activities Reports*.

Our staff members have devoured the meat and bones in every *Monthly Washington Report on National Defense Construction* by A. D. Taylor, of Cleveland, concerning the inner workings of that section of the national defense program which is handled by the Department of Construction Quartermaster. As the result of following his accurate advice concerning procedure in applying for national defense work, we were recently awarded a contract to design and supervise the construction of an important camp. Parenthetically, our experience in Washington enables us to assure all architects and engineers that the Department of Construction Quartermaster is absolutely free from the slightest political influence; it considers only the training and experience of the personnel in the firm applying and the ability of the firm to produce a project with dispatch.

Other of the professional magazines have been carrying a variety of articles concerning national defense but Mr. Taylor's articles have been so well organized that by reading the

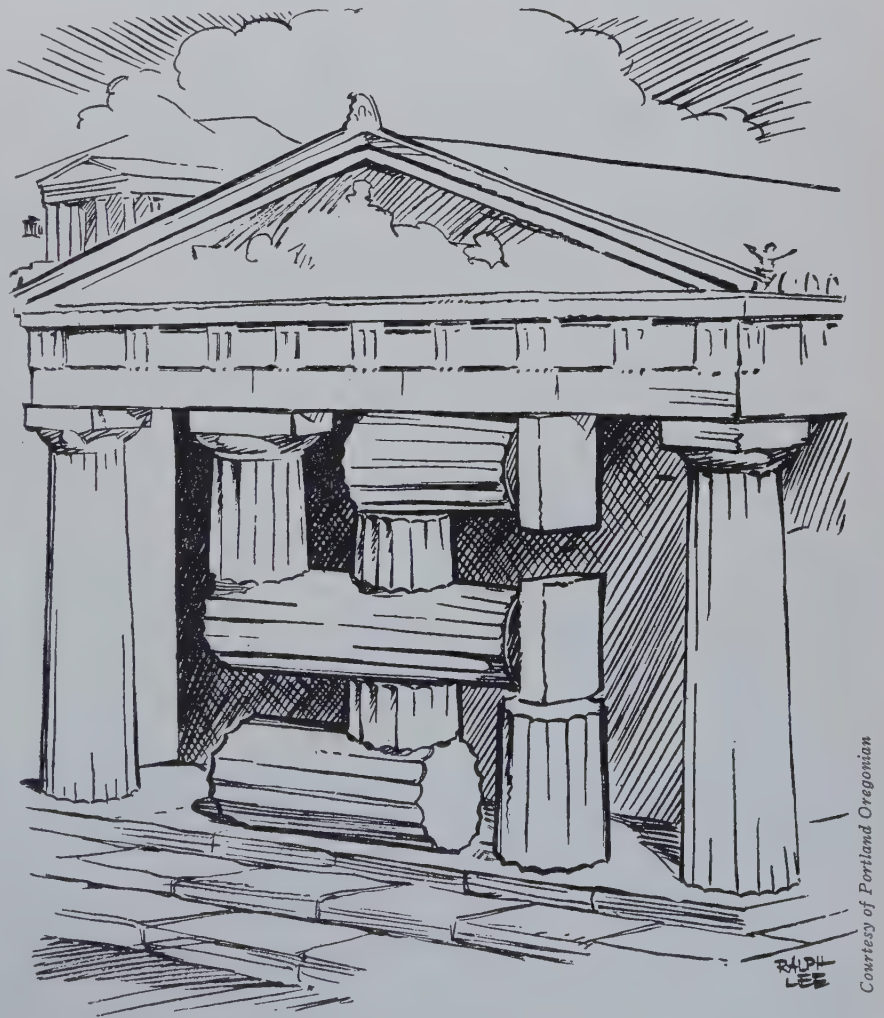
entire file one can acquire accurate knowledge of the history of the functioning of this important department since the beginning of the national emergency.

Mr. Taylor's organization has been at least one of the foremost leaders in the profession of landscape architecture and town planning during the past two decades and we suppose that his unselfish effort to explain the functioning of the Department of Construction Quartermaster was primarily intended as a service to his profession, but in painting a complete picture each month he performed an equally valuable service for the professions of architecture and engineering.

Incidentally, he accomplished an unprecedented feat in convincing the War Department that the services of competent landscape architects and town planning experts were essential to the national defense program in creating the proper environment for the millions of young men who will spend a year or more in the huge military camps and in planning these camps in such a manner that when the temporary structures are removed, after the emergency, they can be transformed at little expense into beautiful national parks instead of leaving the scars created by the deserted camps of World War I.

All who were stationed at World War camps before going overseas can

New Order



Courtesy of Portland Oregonian

ALAS, POOR DORIC! I KNEW HIM WELL

is the caption suggested by Sydney B. Hayslip, Architect, of Portland, Oregon, who thought this cartoon of special interest to members of the profession. The apt trope is credited to "one of the boys" employed in Hayslip's office

Cabot's Stains

for beauty
at low cost



Beauty of the grain and texture of wood is revealed and emphasized through the clear, rich colors of Cabot's Creosote Stains. It is not concealed beneath a painty film. The Cabot-stained house above, at Winchester, Mass., was a prize winner in the latest *House Beautiful* competition. Architect: Jerome Bailey Foster.



Cabot's Creosote Stains are moderately priced, and they save money in application and in upkeep costs. Their vehicle is pure creosote—best wood preservative known. The architect of the Cabot-stained house above is John Dinwiddie, San Francisco, California.

Only in Cabot's Stains can you get the advantages of our patented Collopaking process. The pigments are divided to sub-microscopic fineness and *colloidally combined* with the oil. Thus, the color penetrates further, giving a depth and richness not obtainable with other materials.

Cabot's Shingle Stains

Creosote

Heavy-Bodied

Free
Booklet



Stained
Houses

Shows pictures of many prize winning Cabot-Stained houses. Contains full information about both the *Creosote* and *Heavy-Bodied* Stains. Write Samuel Cabot, Inc., 1293 Oliver Building, Boston, Mass.

recall the frightfully depressing effect created by the maddening regularity of miles of barracks and outhouses in treeless quagmires. The thought given to town planning and landscaping in the present program cannot fail to have a beneficial psychological effect on the young men of our on-coming armies.

We believe we are expressing the gratitude which scores of architects and engineers feel toward Mr. Taylor for his unselfish endeavors and to **PENCIL POINTS** for his reports.

We are indebted to the well-known author, JULIAN STREET of Lakeville, Connecticut, for his compliments on our May issue. His letter below suggests that he has a discerning eye for menus and wine lists as well.

I'm one of those fellows who has to lie down after lunch, so I'm not handy with ink at this time of day.

PENCIL POINTS for May has just come and I don't want to wait to thank you for it. It is an enchanting magazine to browse in, and I think your restaurant contributors did right by you, and that the architects who go out there will have a fine time and benefit much by the advice given.

Thanks for remembering to send me the book.

By the way: Here's a topic for an architectural magazine:

Most architects don't allow for proper wine cellars in houses they build. They jumble up the cellar space with furnace, heating pipes, drain pipes, etc., so a good wine cellar, with proper temperature, can't be made without trouble and expense!

The Editors have not entertained the slightest doubt that ANTONIN RAYMOND is sincere and entirely ethical in his professional conduct. Yet, in view of the recent correspondence published here criticizing his office set-up and questioning the standing of the young men associated with him, it seems appropriate to print his own definition of his position.

I condemn every practice which serves as a subterfuge for violation of the Registration Law as strongly as the Syracuse Society of Architects. The financial arrangement which I have with unlicensed men is not in violation of the statute. The unlicensed men who assist me are considered as subordinates and do not appear at any time as principals.

The following resolution sent by FREDERICK J. WOODBRIDGE, Secretary of New York Chapter, A.I.A., pleased (and comforted) the Editors when it turned up in the morning's mail.

At the last meeting of the New York Chapter of the American Institute of Architects the following resolution was passed:

WHEREAS we the architects of the United States, in our efforts to obtain just recognition of the services we are capable of rendering to our country, have had the invaluable assistance of the architectural magazines,

BE IT RESOLVED that we forward to the Editor of each magazine an expression of our thanks for their forceful and able argument on behalf of our profession.

It is my pleasure to convey this to you as an expression of the appreciation of the Chapter for all that you have done on behalf of the profession. We hope that your efforts in this direction will be unremitting, and assure you of the fullest possible cooperation of the Chapter.

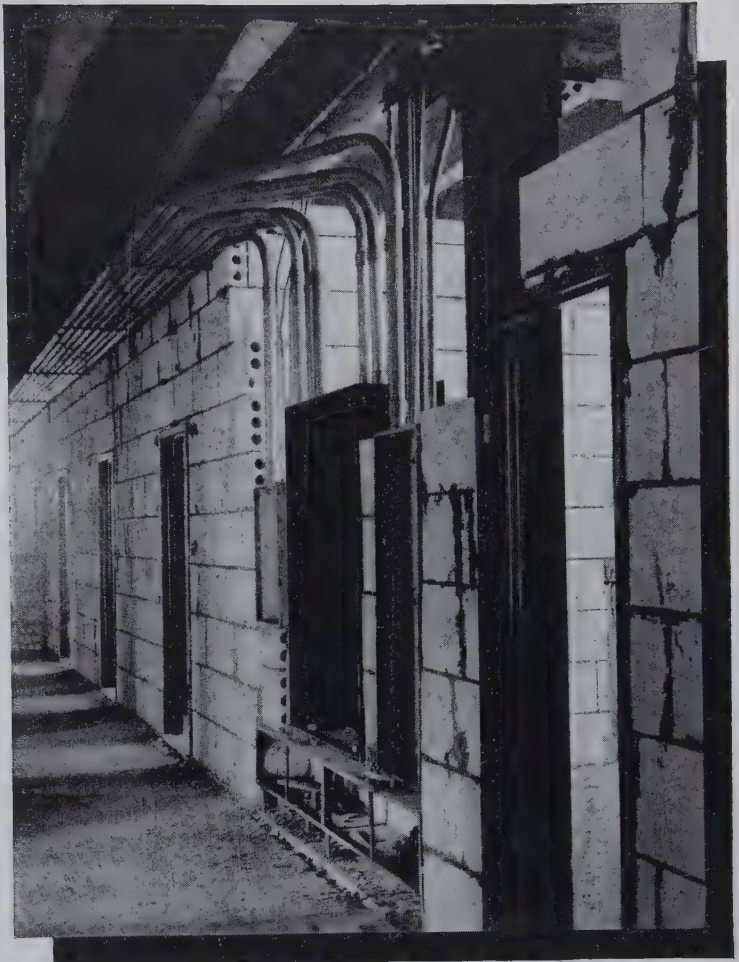
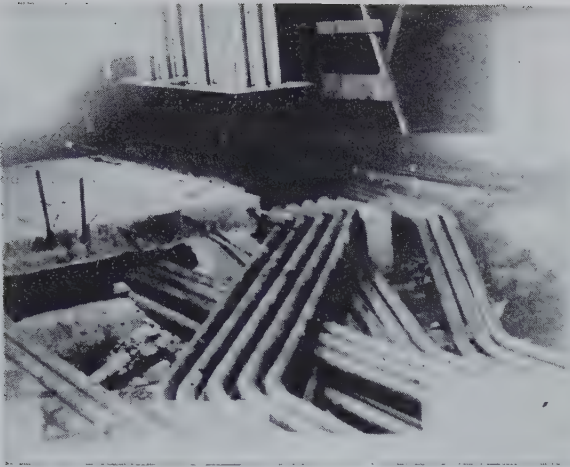
SPEAKING OF DEFENSE!

"Blind emotion is driving the United States into the same pitfall of inefficient defense construction suffered by the English and French. Until defense construction is utterly divorced from politics it will not be done well. We have documentary evidence, first from France, then from England, and now unfortunately patent in our midst, of the evils which result from the creation of construction programs by existing government or military bureaus never before faced with problems of such creative scope, or by hastily-thrown-together new authorities." *Harvey Stevenson*, Chairman

Civilian Protection Committee
New York Chapter, A.I.A.

"Many industries, both large and small, including food, rubber, grain, motion pictures, and watch-making, to name only a few, owe much of their increased efficiency and economy to the control of temperature, humidity and air distribution; and because of air conditioning the public gets a better and a cheaper account."

Nathaniel A. Owings
Skidmore & Owings



Battelle and Buckeye TWO DISTINGUISHED NAMES

Among men of industry, the Battelle Memorial Institute stands high for achievement in scientific research and materials development.

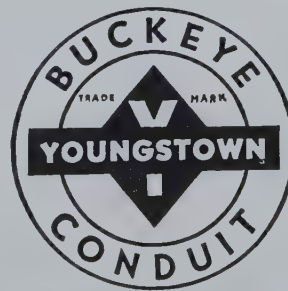
With electrical contractors, the name Buckeye signifies first quality and top performance in electrical conduit.

It is no mere coincidence that Buckeye Conduit was selected for the recently completed addition to the beautiful Battelle building in Columbus. For Buckeye is the largest selling conduit in America, as well as the finest.

Made as an important specialty by Youngstown, Buckeye Conduit is fabricated of materials quality-controlled and quality-guarded throughout every operation to the finished product, on machines that are the last word in efficiency, by men whose long years of experience have made them artists of perfection. MATERIALS, MEN and MACHINES - they bring you Buckeye--most reliable rigid steel electrical conduit, easy to handle, easy to bend, ideal for close work and affording complete protection to your wiring.

26-19D

This installation of 2" Buckeye Conduit in the new addition to the Experimental Laboratories of the Battelle Memorial Institute at Columbus, Ohio, is an exceptionally fine example of close work and bending. Supplied by Pixley Electric Supply Company, the conduit was installed by the Weisz Electric Company of Columbus.



YOUNGSTOWN

Manufacturers of Carbon, Alloy and Yelow Steels

★
THE YOUNGSTOWN SHEET AND TUBE COMPANY, General Offices, YOUNGSTOWN, OHIO

Conduit - Sheets - Plates - Bars - Rods - Wire - Nails - Tin
Plate - Pipe and Tubular Products - Tie Plates and Spikes

THE CRYSTAL HOE

Down with china shop home architecture! The present-day house makes even the most timid soul feel like the proverbial bull. The precision-finished interior of the wall-papered, white-woodworked, varnished-floored house makes it the object of protection by its inhabitants, rather than the place of shelter and protection that it should be. The upkeep of painting and re-decorating is financially painful to the owner and physically painful to his children, who must be restrained from engaging in their childish activities.

Houses must be built to grow old slowly and gracefully. They must be able to assume a patina through years of use that will add to and not subtract from their beauty. Beauty five-hundredths of an inch thick cannot be depended on to last for twenty years. Beauty must be able to take the beating it will get from association with normal human beings!

The present-day demand for precision-finishing is also a chief cause for the rising house cost, in comparison with autos, refrigerators, and other mechanical products. Precision-finishing by handcraft methods is slow, expensive, and entirely unsuited to the handcraft technique. There is no reason why the handcraft arts of home building should have to compete in finesse with the products of the factory. Walls, floors, and ceilings are not required to move or operate; why then should such efforts be made to create smooth surfaces?

My plea is to let finesse be allocated to those parts of the house which can be manufactured in the factory, such as doors, flooring, windows, and mechanical equipment. Replace the sixteen-operation, smooth-surfaced, uninteresting stud wall with a textured, one-operation wall of two-sided brick, stone, wood, or rammed earth, and a structural system that declares its existence. Rusticity has beauty, permanence, and economy to offer: what has "handcraft finesse"?

HAMPTON WHITE
University of Kansas

"FORCEFUL BLUNDER"

The Laocöon group is often cited as an example of a beautiful, forceful
(Continued on page 14)

DEFENCE:

ARCHITECTURAL STUDENTS' SOCIETY OF THE ROYAL VICTORIAN INSTITUTE OF ARCHITECTS

SMUDGES

March

Edited by R. Penleigh Boyd, Associate: John Barry. Distribution: Ron. Lyon.

AS DEFENCE PRESSES FORWARD AUSTRALIAN INDUSTRY WITH UNPRECEDENTED ACCELERATION, A GROWING NEED BECOMES PAINFULLY OBVIOUS. FROM EVERY CORNER OF THE COMMONWEALTH AN URGENT CRY IS RAISED—

H O U S E S

Eighteen months since the declaration of war, with the defence programme barely started, March 1941 finds a housing shortage unparalleled since the gold rush. In almost every section of the community the scarcity is felt.

Munitions labourer travels over thirty miles through ideal building sites, to find rest in the bed vacated by another on a different shift. Absent soldiers' families are forced to pay high rents for sub-standard dwellings, for landlords can afford to be "particular" about their tenants.

To-day it is clear that if something is not done to alleviate the position—and done very quickly—the whole defence scheme will be derailed. While State and Federal Governments argue the responsibility, private enterprise continues feebly, erecting uneconomical, obsolete, potential slums, coining handsome profits.

In Ascot Vale six houses are being built with eight feet of back yard, in one street. For a pair on a 17-foot-wide lot in a 30-foot-wide street, 32/6 a week rent is asked.

TO MEET IMMEDIATELY THE ACUTE SHORTAGE, PRIVATE ENTERPRISE HAS PROVED TOTALLY INADEQUATE

Apparently helpless, R.A.I.A., R.V.I.A., still officially sit on the fence, minding (it seems), literally and figuratively, their own business. There is an answer to the problem. There is one way, and only one way, in which housing can be replaced on its feet. The answer is in Canberra.

SOCIALISATION

In the best brains of the industry, the architects, the engineers, the builders, there is locked the knowledge that would create the necessary machinery in an instant—given the chance. In Canberra is the power to give them the chance; in Canberra is the power to set the machinery in motion.

WITHOUT A MOMENT'S DELAY A COMMISSION MUST BE APPOINTED—A COMMISSION OF ABSOLUTE AUTHORITY—TO CONSCRIPT EVERY MAN IN THE INDUSTRY, IF THAT BE NECESSARY, TO THE ONE END, ADEQUATE, IMMEDIATE, MODERN HOUSING FOR EVERY INDIVIDUAL EMPLOYED ON DEFENCE LABOUR. Commission should include economists, architects, builders, engineers.

There must be no hesitation about conscripting various offices throughout the city. There must be one office and one object to produce model suburbs immediately. With scattered offices of architects, engineers, landscape experts, builders, and specialist tradesmen, too much time will be lost in co-ordination. This is a big task, and big measures must be taken to carry it through.

If this is an extraordinary measure, then these are extraordinary times. That it will not affect the tightly closed purse of the speculator or practitioner is incidental, but nevertheless clear, for the middle-class field need not be interfered with. Federal Parliament has the power for such a move; it has the money. While the current hesitation persists, ideal home-building property is being rapidly acquired for further factories; development is uncontrolled and lacking in foresight.

FURTHER NEGLECT AT THIS STAGE MAY WELL RESULT IN EVENTUAL PARTIAL DISORGANISATION OF THE ENTIRE DEFENCE PROGRAMME.

FINANCE

Whilst there can be little doubt that the cost of such project is a State matter, for the sake of urgency the Commonwealth must undertake complete responsibility. These are times when State Governments become mere names. Some scheme of low deposit and free of interest loan can be evolved to assist the worker to own his home.

Finance is no barrier. We need not look a foot further than our shores to find everything required—raw materials, skilled tradesmen, unskilled labour—infinite resources waiting to be tapped to serve Australia now.

Australia's legion of unemployed unskilled labourers, properly directed is all that is required to realise immediately limitless supplies of the most important building material in the world—timber.

PREFABRICATION

Most frequently offered solution to the shortage at all current discussions is Prefabrication, but authorities differ as to its suitability for solving the present problem. Difficulties are raised, particularly the lack of large factories suitable for the fabricating.

But of the hundreds of systems patented in recent years in the U.S.A., the only few that have been successful have been based on the timber panel, of such construction that they may be made by any skilled joiner in his usual shop.

Construction is simply frame panels with composition or dry-glue waterproof plywood sides and insulation infill. Plan on a strict module basis, mechanical equipment concentrated. Panels are never heavier than two men can comfortably lift—200 pounds—are clipped together in a variety of methods.

WITH ITS VAST RESOURCES OF TIMBER, AND GREAT DISTANCES, AUSTRALIA IS A COUNTRY FOR WHICH PREFABRICATION IS IDEALLY SUITED.

Great advantage of the system is speed, for the one shop constructing the entire structure has all the facilities on hand; the delay caused through non-cooperating trades is avoided. For a small individual scheme no great economy would be achieved, but with a large-scale venture the saving is considerable.

Biggest stumbling-block to Prefabrication's progress in this country might appear to be the Australian temperament. The Australian hates to be "standardised" and likes his home individual. But Prefabrication encroaches little on individuality, it merely provides a considerably larger unit of construction than most conventional systems, thereby reducing the number of possible variations in appearance—but not prohibiting them.

Trade interests that would be adversely affected by Prefabrication will raise countless objections; we will listen to them quietly and politely, and explain that there is a war on.

A.R.P.

With the lesson of European countries written in fire before us, we must be determined not to be caught napping without protection. Incorporated in all housing developments must be complete central shelters. Melbourne to-day is not even in the position of pre-war London, with its labyrinth of tube-railways that are now turned to community shelters.

DESIGN

If no organised scheme is started, a haphazard housing drive will soon begin, and aesthetics are likely to be given a back-seat. But in such a working scheme as SMUDGES outlines below, design sits snug and secure, nurtured by the central controlling body.

BOUND UP WITH THE CURRENT HOUSING PUZZLE IS THE VITAL PROBLEM OF POST-WAR SOCIAL WELFARE

Regardless of the urgency of adequate housing, one thing must be borne in mind by authorities in control. These houses are not temporary. They will remain long after the war has been won. Under their roofs the next generation will be born and bred. It is up to us now to see that it will be given every opportunity—a chance to live among ordered architecture, spacious grasslands, and from the hubbub of noise. When the factories of war have been changed to the factories of peace, it will be too late to blame unattractive, inefficient housing on to the rush of war.



H O U S I N G

To Minister of Labour and National Service, Harold Holt, M.P., SMUDGES sent a proof of this editorial. What follows is the Minister's reply:—"I like SMUDGES' bold, thoughtful approach to the problem of housing the low-wage worker. A well-housed worker is a contented worker. His domestic contentment strengthens his sense of civic responsibility. The State has thus a direct interest in his welfare and an obligation to see that his social needs are met.

Private enterprise has failed to satisfy his requirement of a congenial healthy home at a rental within his comfortable reach. We will waste much precious time and effort if we persist with argument as to where the responsibility lies. I would like to see the Commonwealth Government accept this task without delay. We are tackling the housing needs of our own munition workers. A large-scale housing programme must form part of our post-war reconstruction plan, but can we afford to wait as long as that? I think not. I will give your stimulating article the full consideration that it merits.

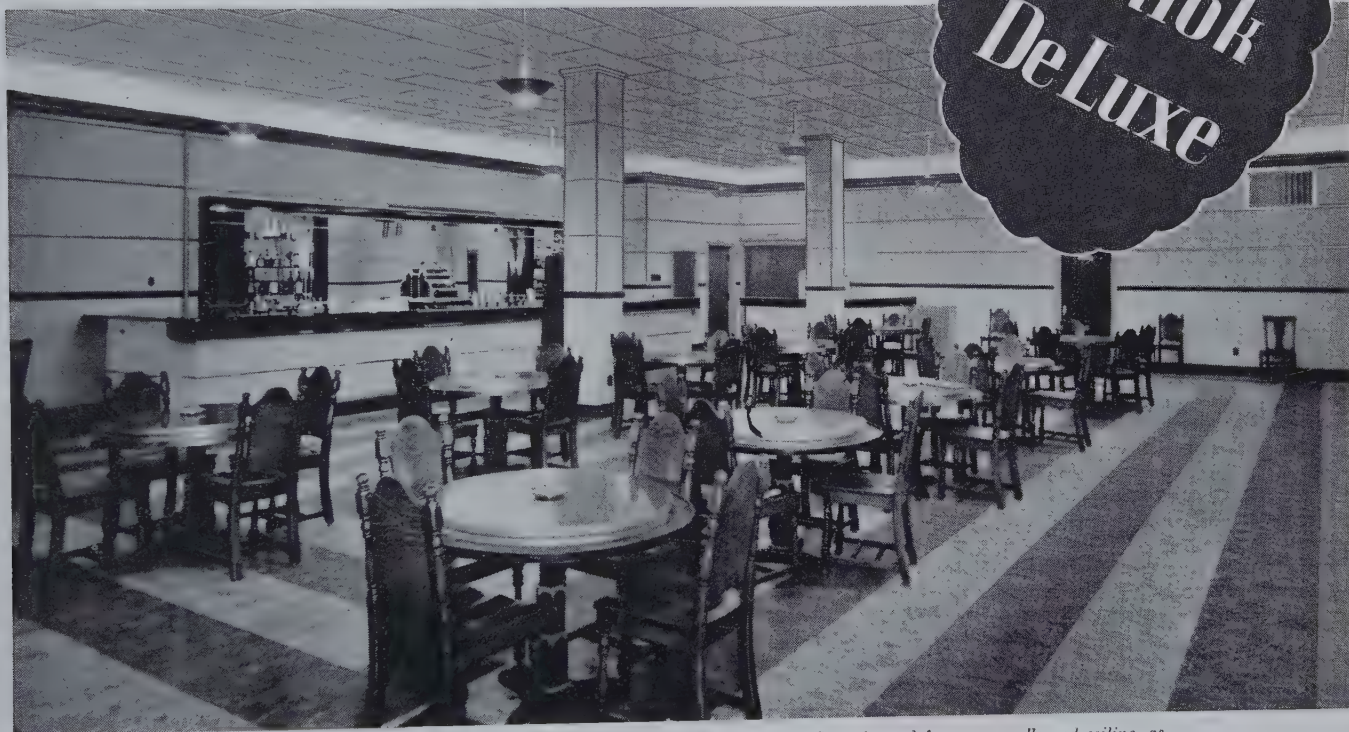
HAROLD HOLT.

Congratulations to the Architectural Students' Society of the Royal Victorian Institute of Architects, Melbourne, Australia, for its sharply outspoken publication, "Smudges," of which the latest issue received is reproduced above.



EVERY JOB A RUSH JOB?

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FAST CONSTRUCTION of smart interiors like this is possible when Temlok De Luxe is used for upper walls and ceiling, as in this smart restaurant. Wainscot is Armstrong's Linowall. Attractive floor is Armstrong's Asphalt Tile. Architect: Clarence Wagner, Williamsport, Pa. Temlok Wholesaler: C. C. Coolbaugh & Co. Dealer: Gehron Construction Co.

WHEN clients are clamoring for speed, it's pretty irritating to be held up just because plaster takes weeks to dry. Here's a simple way to dodge such delays—and, at the same time, add unusual *extras* to your walls and ceiling. Try Temlok De Luxe!

Armstrong's Temlok De Luxe is a factory-colored insulating finish which saves valuable building time and money. It is easy to erect and, in new construction, *replaces plaster and paint or wallpaper*. Quick installation can be made either with adhesives or with the new Tem-Clips which "float" the insulation against furring strips or joists.

And here are the Temlok extras. Your clients get *efficient insulation* and *unusual decoration* (there are several attractive, fast colors available, in panels, planks, and boards.) Temlok also offers *high light-reflection*, and *effective noise reduction*. Think of it—you include *all* these

features in *one* quick installation, at *one* reasonable cost . . . when you try Temlok De Luxe! For complete facts, see "Sweet's," or write now to Armstrong Cork Company, Building Materials Division, 911 Concord Street, Lancaster, Pennsylvania.



ARMSTRONG'S TEMLOK INSULATION

De Luxe Interior Finishes • Lath • Sheathing • Hardboards • Monowall

(Continued from page 12)

blunder. The Classicist believes that action cannot be expressed in a static mass of stone; and that in Architecture, movements must be balanced and actions equalized. That is why Classic Architecture is static.

Today we create flows, actions, movements . . . The new architecture is generally dynamic.

Were the Classicists victims of convention, or are we victims of a fad?

There is an incomparable beauty and refinement in static compositions, which followed the Classic canons of Vignola, Ware, etc. But there is such a thing as something overstudied—too refined, sugary, ponderous, or feminine. Canons are never entirely right, or entirely wrong. Like the brains that produced them, they have weak spots. Classic Architecture canons are mostly intellectual and artificial. They are not human, and warm, and inconsistent, like the people for whom they were created. For Architecture was created to serve man: and, in the future, the nature of man alone should dictate our designs.

Architecture should become a material echo of the flow of life of

man. Let there be conventional architecture where men are conventional. But in America where men are comparatively free, and very human, let architecture be free and human. Yes, the new architecture should have no canon. It should be a dynamic creation with static materials. It should even be static in concept when necessary. But above everything it should be flexible and adaptable to riches, to misery, to power, to conventionalism, or to freedom.

JORGE GONZALEZ-REYNA
University of Texas

IS REGIONALISM DYING?

One of the chief sources of interest and vitality in the architecture of a country as large as our own is the variety of expression which is commonly known as Regionalism.

The variety of building style demonstrated in regionalism is the most legitimate; the least artificial possible. It is based on the fundamentals of architectural design: the use of materials, construction methods, orientation to light and insulation from heat and cold. The direct solution of each of these problems results inevitably in differences of final expression.

I think, however, that there is a distinct trend away from regionalism. There are many strong factors in our contemporary civilization which tend to destroy individuality and encourage a uniformity of taste and standards throughout the country. This applies not only to architectural design but also to standards of dress and even of speech. Ease of communication and transportation, mass production methods, the movie, the radio and the magazine have, in effect, made the nation smaller.

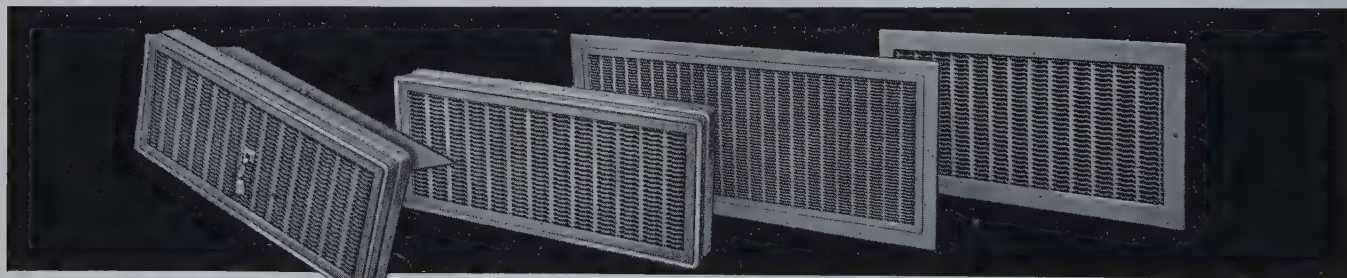
The coming of the "International Style" was indicative of the trend to standardize architecture. Even if we should entirely reject the European influence, can we hope for more than an "Intra-National Style"?

ALLEN R. KRAMER
Cornell University

We are encouraging students in any architectural school to submit articles of the nature of those already printed—not exceeding 350 words.

Material is due the 10th of the month preceding the month of publication. We will specially welcome articles during the Summer.

PAUL PIPPIN



uni-flo

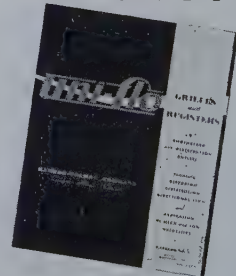


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R. J. Hyer
PRESIDENT

LET'S KEEP COOL!

If our American way of life is to survive, every industry must work in close cooperation with the industries that serve it and, in turn, with the industries it serves during this period of peak demand for goods.

A rush for materials is very much like a run on a bank—and can be equally dangerous unless cool heads analyze and plan.

REPUBLIC TONCAN IRON

...of refined open-hearth iron, copper and molybdenum—that grows old slowly

HERE, THERE, THIS & THAT

POTOMAC PATTERN

Contentment for our architectural brethren hereabouts is not to be. For here is verily an incompatible situation from which no divorce is possible unless the concerned individuals just throw up their hands (no Hallelujah!), cash in their chips and move to other climes to start afresh. (Warning! Apparently Boston is not the place.) While some are more or less happy in their doings, the picture in general is one of confusing ideas. Our best known mass housing practitioner, *Louis Justement*, has no housing to do. Yet Housing is being done. Our bigger offices are not too busy and the small ones are looking for help. Building and remodelling is at its peak but the local property holders are not paying legitimate fees yet. Not while some of the boys in Uncle Sam's service are willing to earn a few extra dollars on the side. And who can blame them? No overhead; no fee.

But the height of all malcontentment manifested itself in the recent action by Public Buildings powers that be when with deliberation and "malice towards some," a goodly number of temporaries were handed substantial raises — from \$300 to \$600. How that hit the permanents between the eyes is something you won't know unless you are familiar with all the facts. We know—but

(Continued on page 40)



The terrifying drama of the Nazi devastation of London is portrayed in photographs, paintings, etchings, and other media included in the current exhibition of "Art of Britain at War" at the Museum of Modern Art, New York. At the end of the summer, the show will go on tour. Two undaunted heroines in a setting that might have been designed to symbolize Destruction are shown in the photograph above. The watercolor at left, by R. B. Pitchforth, records the effect of a Nazi bomb dropped on a Birmingham factory

...AND LASTING BEAUTY UNDER FOOT WITH

Terrazzo



A SCENE of immaculate beauty in the Sacred Heart Cathedral at Raleigh, N. C., to which Terrazzo adds its full share of rich color.

Here is a striking example of the freedom of design and color *FINE TERRAZZO* offers you for every floor plan. Made with white portland cement — Atlas White — it allows you to reproduce any pattern in any combination of colors you want. Colors with life and fire — or softly glowing tints and shades appear under foot exactly according to specification. And they last a lifetime — with practically no maintenance cost — even under heavy wear.

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Beautiful floor in the Sacred Heart Cathedral, Raleigh, N. C. Marble aggregates used were: domestic white; Belgian Black with black pigment; Royal Green; Red Rosa with red pigment; and red fused enamel. Architect, F. Frimmer, St. Petersburg, Fla.; Terrazzo Contractor, Atlantic Marble and Tile Co., Inc., Charlotte, N. C.

FOR FINETERRAZZO SPECIFY



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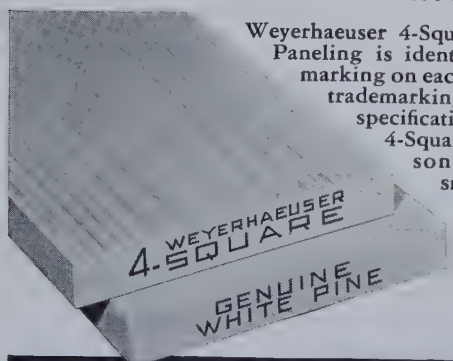
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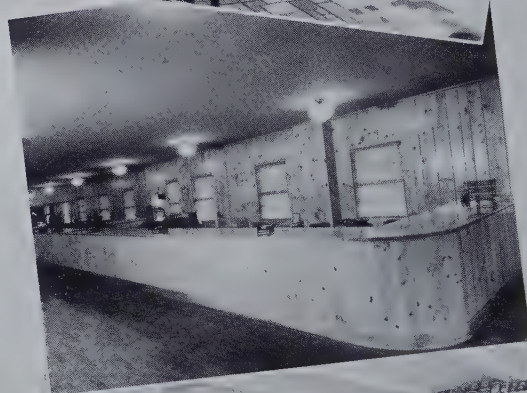
● Many combinations, such as horizontal boards with moulded battens or horizontal and vertical application used together, are proving effective backgrounds for modern furniture, draperies and decorations.

● Genuine White Pine, either natural or stained, takes on a depth of color with the years and acquires that richness and "friendliness" for which it is famous.

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● Night in London! Sirens suddenly scream! Anti-aircraft guns begin to roar! The drone of enemy bombers swells to a deafening din. *Here come the incendiaries!*



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MEET A "SURVIVOR"

Yes, here's an actual section of a British Mastic-type roof, removed from a well-known London building after a direct hit by an incendiary bomb. The upper illustration shows the exposed side with nothing more than a shallow crater seared in its surface. Note the shape of the cylinder which contained the inflammable Thermite.

The lower photograph shows the under side of the same section. Not a blemish! Not a break-through! Its surface is as perfect as the day the roof was laid.

BARBER

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Bickfords

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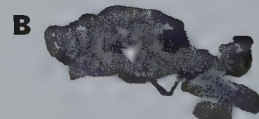
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Venus Pencil Company, Ltd., Toronto
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A. The outlines of the foliage first drawn with the edge of a flat pencil point (Venus 3B). The jagged lines suggest foliage formations. Note that the pressure on the pencil is varied and the flat point turned constantly to vary the width of the strokes.



B. Broad, short, curved pencil strokes, touching but not overlapping, indicate foliage masses (Venus 4B). The same type of darker strokes (Venus 6B) give the deeper values. The characteristic silhouettes of the individual trees should be carefully studied.



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PUBLIC RELATIONS

A SECTION EDITED BY D. KNICKERBACKER BOYD

This month, while we are awaiting the outcome of discussions by members of the Institute and of State Organizations at the Convention in California, we present some subjects here for possible discussion. On these we shall hope to receive comments from readers who were unable to get to the Pacific Coast.

We trust also that the printed ideas and the spoken words, as recorded in this Section, regarding the

value of Architects' services, will prove helpful to many — among them those architects willing to serve their profession by writing and by radio broadcasting.

Also, that other activities here described may prove incentives for individuals and organized groups to emulate.

D. KNICKERBACKER BOYD

4 South 15th Street, Philadelphia, Pa.

TRADE PUBLICATIONS

(2) In the "Weekly Building Material Price Supplement" published by "The Dow Service" appeared (in the April 6th issue of 1939) one of the most significant statements ever made about the actual value of architectural services. It is by Myron Matthews and is here reproduced in part:

"ARCHITECTURAL BUILDING DOLLAR VALUE RECEIVED GREATEST OF ALL

"The cost of architectural and engineering services in the design of buildings and their supervision while under construction, together with the management of the erection process by a reputable building contractor, is today the best low-cost insurance to the owner of getting a quality building money can buy. Too often, to the owners' later sorrow, one or the other, or both the services of these professional and practical construction experts are dispensed with in the name of economy. Immediate economy of a small fractional cost of the full cost of buildings which are long-term investments for somebody—even in the case of speculative units—usually turns out eventually to have been a false, temporary economy interfering with rentability, resale and refinancing at a future date. Often have owners pitifully been heard to remark in such a situation, 'If I had it to do over again the architect or engineer with the contractor would have complete charge.'

"The money the architect can get from his customary 6% designing commission is hard earned. It amounts to about what the lender of mortgage money gets for the use of his money. The owner pays this without thought of evasion, skips the architect, thereby jeopardizing the soundness of the entire venture. The lender is placing a growing emphasis upon this point and many banks today will not lend a nickel unless a competent architect is employed and also a good contractor. Owners omitting architectural services today may tomorrow find serious refinancing troubles as a result.

"Now what does the architect have to do to earn his 6% designing fee and what does he do with the money thus earned. He must provide an adequate office, maintain a sufficient staff, originate and produce sound plans and attractive designs, maintain contact with clients on work under construction, perform a complicated buying function and an equally complicated superintendence function (usually a small extra percentage), keep informed of new trends in design, construction, materials and treatments, squeeze out time somewhere in

which to influence new assignments into his office, and continuously keep such an eagle eye on his costs that he can accomplish all the foregoing within the fixed and narrow margin of 6% of the total cost of the work entrusted to him—the sum total obviously constituting a big league problem in business management. It is true, of course, that in some large metropolitan architectural offices, various functions are divided and allotted to specific individuals. In such offices the material or equipment salesman may never reach or see a member of the firm. Instead he will see the firm's specialist on his particular subject. Of the approximately 8,000 active architectural offices in the United States only a few rank in this classification. The great bulk, in point of numbers, is made up of those in which the principals are active in all phases of the work, or in which one partner is responsible for the artistic performance of the office, another for engineering and technical superintendence and a third for organization management and new business. Sometimes all this is done by two partners and sometimes by one

"Architectural design and supervision in no way should be regarded as a policing power hampering the builder in turning out a good building inexpensively. Or any reflection upon his honesty and integrity. Most good builders prefer working with architects and engineers and actually are anxious to share the responsibility for final results with a supervising technician. A builder who has been very skeptical of the Federal Home Building Service Plan stated at an organization meeting in his locality, 'Does this plan mean that a competent architect is to supervise the construction of houses that I erect? Then I am for it! Half of the headaches in my business are the complaints that this or that detail of the completed house is wrong. As I see it, owners should be better satisfied, complaints minimized, since I shall be working from carefully prepared blueprints and material lists, with costs accurately figured.'

"Some owners, and builders, too, have felt that architects and engineers sometimes cramp the style of a contractor to an extent affecting the pocketbook of the owner adversely and unnecessarily. This view is wrong and is rapidly giving way to intelligent enlightenment. More and more, greater reliance is being placed upon the architect by both owner and contractor. Contractors show increased confidence that the architect must in his central position guard both the owner's interest as well as the contractor's, not to mention his own. Then, too, to a growing degree, banks are taking direct interest in buildings under construction in which they are financially interested

"The architect is the owner's expert designer, supervisor and general arbitrator and coordinator. The 6% he gets may well be the most value per dollar an owner receives."

(3) This Editor is having some interesting correspondence with the Editors of trade publications. The suggestion is being made that when possible some of their space be devoted to quoting extracts from appropriate documents of the Institute or of State Associations or other authentic literature concerning architects' services.

Such material is being furnished those publications which can make use of it. At the present moment all architects should, we feel, consider it a compliment that "The Plastering Craft," official Journal of the Contracting Plasterers' International Association, has published in two recent issues:

*"A Statement Concerning the
Profession of Architecture."*

*"The Architect's Services on a
Building Project and How to
Select an Architect."*

MEMORIALIZE ARCHITECTS

(3) At this date it is too early to say how generally Memorial Day Citations were issued or ceremonies observed as suggested in our April Section. Next month we shall show by reproductions of clippings or quotations from letters received, how this activity was accepted by the press or the public in various localities. Meanwhile we print this interesting suggestion by Horace W. Peaslee.

"The Memorial Day suggestion is indeed timely. It might afford an interesting follow-up to find out where our pioneer architects are buried. We have L'Enfant, Thornton, Hoban, Hadfield and Mills in Washington.

"Where are the graves of Bulfinch, Renwick, Richardson and others. How are they marked? Mills was unmarked for years; Hadfield, who did our beautiful court house, has a crude stone; L'Enfant's marker was an apple tree until the Institute saw to it that he was honored.

"Public Relations are all to the good—but we must not forget our private relations."

ARCHITECTS INTERESTED IN APPRENTICE TRAINING

(1) The label here shown has been attached through Committee action of the Philadelphia Chapter to nearly two hundred blue prints delivered to the School Authorities, with more to follow. This activity is explained in the Committee's Report about to be made at the annual meeting of the Chapter in June, as here quoted:

"Report of the Committee on Industrial Relations"

"This Committee has assembled through the cooperation of several members of the Chapter and of the Philadelphia Housing Authority

an extensive collection of blue prints of appropriate buildings for the purpose of instruction in 'Plan Reading Classes' in the Public Schools. In collaboration with Mr. William J. Hagerty, Senior Local Representative of the Federal Committee on Apprenticeship, these prints have recently been augmented by those of mechanical equipment in buildings for use by classes of apprentices who are being given Related Instruction under established 'Apprenticeship Standards' in the Defense Program. These prints are now being distributed to the vocational schools in the City under the guidance of Mr. Charles F. Bauder, who is Director of Vocational Education in the Board of Public Education."

Eugene A. Stopper, Carl DeMoll, Stanley Yocum, Abraham Levy, D. Knickerbacker Boyd, Chairman."

**This Print furnished through the auspices of the
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Vocational Education for National Defense**

EXHIBITS & EXHIBITIONS

(5) *Exhibitions in Department Stores:*

In the Monthly Bulletin issued by the Washington State Chapter, A.I.A., April issue, reference was made to a report by the Exhibition Committee Chairman that a department store had set aside for the use of the Chapter a permanent exhibits space to be kept up by the Chapter. It was further stated that this firm would make the backgrounds and keep some one in charge to answer questions.

This Editor entered correspondence with Charles H. Alden, Editor of that Bulletin, and quotes from his letter, as here indicated:

"Frederick and Nelson's, where the exhibition is to be held, is Seattle's high grade department store which for many years has been an important factor in fostering the aesthetic and cultural life of the City and has worked in close cooperation with the Chapter, holding high-class exhibitions of architecture and art, at one time going so far as to conduct a competition for types of small residence work including building from the prize designs including interior decorations and furnishings. F. and N. do not feature sale of building material, but do feature furnishings.

"The exhibition now to be conducted in cooperation with the Chapter is to open in two or three weeks and will consist of architects' drawings and photographs; mainly drawings, covering any phase of architectural work in this vicinity. F. and N. bear all expenses including their proposed attendant to answer questions and give information, the Chapter

arranging for getting the exhibits and will cooperate fully with F. and N. in making the enterprise a success."

(6) *Producers' Council Holds Products Display.* Fifty-five architects and consulting engineers attended a display of building products by members of the Producers' Council Club of Cincinnati in the Hotel Gibson Roof Garden on Friday evening, March 14th. The meeting, while the first of its kind held by the Council Club, was so successful that several more are being considered for other groups interested in the building industry. Undoubtedly the interest of the architects in the displays was due to the fact that they were limited to new products as much as possible.

(From Ohio Architect.)

STUDENT & OTHER CLINICS

(a) There may exist in some quarters opposition to the setting up of Architectural Clinics. The subject is certainly worthy of discussion as a means of establishing relations with the building public which might otherwise not be had. The reasons prompting a service of this kind could not be better described than by quoting from the Announcement of the Pratt Architecture Clinic, issued early in 1940.

ADVANTAGES: PUBLIC

Judging by the number of inquiries that reach certain information bureaus, the public has a great many problems which it feels are too small to bring to a practicing architect or which architects find they cannot handle profitably. These problems the Clinic will undertake to solve. Questions asked in person or by mail, relating to the entire field of building, will be answered without charge. For a nominal registration fee any particular building problem will be analyzed and a program of action recommended. A private practicing architect assumes the responsibility for each project that requires filing under the Building Code.

EDUCATIONAL

Under present conditions a student who has completed his studies and received his Bachelor of Architecture degree is not permitted to engage in private practice until he has passed the State examination for which he is eligible only after a period of practical experience. In recent years there has been so little employment in the architectural field that such practical experience has been extremely difficult to obtain. Pratt Institute feels, therefore, that the school is obligated to supervise such advance experience as a part of an adequate educational policy and has consequently taken this unprecedented step to bridge the gap between school and practice.

PROFESSIONAL

Everyone familiar with the building field today realizes the tremendous proportion of architectural work that is being carried on outside the profession. Through the medium of the Architecture Clinic it is hoped that the public will take greater advantage of the services of the Architectural profession. With the approval of the profession, the Clinic will counteract the influence of certain unscrupulous building organizations and advertisers. Many architects will receive the benefit of part-time or full-time work guided to them as a result of the advice given by the Architecture Clinic.

This Clinic is organized and sponsored by the Department of Architecture in the School of Fine and Applied Arts at Pratt Institute, Brooklyn. It is fully approved by the Brooklyn Chapter, A.I.A., and has an Advisory Board, headed by C. C. Briggs, Supervisor of the Department, two officers of the Chapter and the Director of the Art Schools.

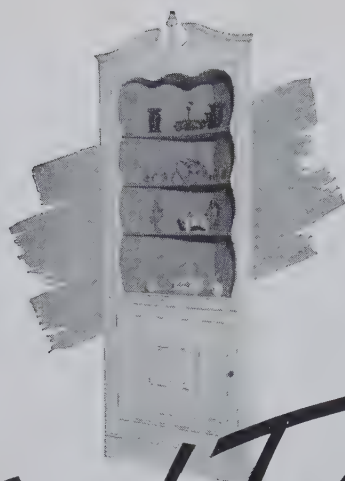
(b) In later issues reference will be made to other Clinics in Buffalo, Ann Arbor, Indianapolis and elsewhere, with comments. Meanwhile reports on the existence of any other "clinics" as well as arguments pro or con will be welcomed by this Editor.

TALKS BY ARCHITECTS

(1) *Architect Talks to Women's Clubs.* Frank H. Wright spoke before the Detroit Federation of Women's Clubs, Thursday, April 10. His subject was "A Livable House." He illustrated his talk with crayon sketches, showing good and bad examples of planning and design. Such programs are of the greatest value to the profession as well as to the public.

(From Michigan Society Bulletin.)

(Continued on page 28)



"Good Taste"
SPEAKS FOR ITSELF...

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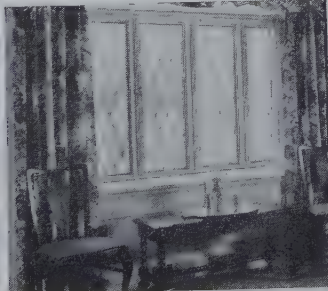
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RADIO

(9) Talk by Frederick A. Fletcher, A.I.A., under the Sponsorship of the *Baltimore Home Show—1940*

I am speaking to you about the home. "Be it ever so humble there's no place like home." Thus sang the poet, the song writer. The desire for a home is a natural emotion and practically every normal person at some time in his life, at least, desires a home of his own. Home in the abstract consists of a number of elements; associations, custom, habit and so forth; but the physical embodiment of the home is the house in which we live, and it is to the building of this house that we are referring this afternoon.

The building of a home to most of us means embarking on a big adventure, and it might be well at this point to say a few words about what we are going up against. For the first time in our lives, in the case of most of us, we find ourselves contacting and dealing with the great Building Industry. I say great because it is great. It is the second greatest industry in this country; second only to that of the farmer, agriculture.

We do not ordinarily associate romance with the efforts of the builder, but actually, a very interesting and even romantic story could be written about the building of your home. In the first place, the home must be designed; then with the design, instructions, and drawings the builder goes to work. He calls upon various sub-contractors, each a specialist in his particular line; the carpenter, the painter, the plasterer, the plumber and so forth. These men procure the material which their workmen put together from dealers in these particular materials, who in turn buy from mills and manufacturers; and so the story could be carried back to the felling of the trees in the forest, the digging of the clay for the brick, the mining of the metals for the steel, the tin, the copper, and so forth.

I have been asked the question, "What is the proper way for a person desiring to build a home to go about it?" Before the depression the average small home owner did not attempt to have a home built for him. He bought a ready-made home and he generally bought it from a speculative builder. Not being experts in building affairs, most of these owners were not able to judge the quality of the home that they were buying. Only in rare instances did a home buyer consult or employ an architect before buying or building his home, but he bought one already built and generally bought it, as one buys a "pig in the bag" because he could not see what was hidden and could not distinguish bad planning at first glance; how could he, that is not his business in life.

This was most unfortunate; for the small home owner forms the backbone of the nation and the building of his home generally represents the largest single investment of a lifetime.

One result of the above method of acquiring a home has been summed up in the following words by an expert of national reputation. Said he, "These people, above all others, needed architectural service and advice in the construction or purchasing of their homes, because the owner of the small home can least afford to take any risk in his investment. The risks that have been imposed upon him were dramatically demonstrated in the experience of the Home Owners Loan Corporation. Of approximately one million homes that were refinanced by the corporation, it is stated that more than three hundred thousand, nearly one-third, were so badly planned, and constructed that they did not afford reasonable security." This important discovery led to the conclusion that the absence of competent architectural service and competent supervision of construction was one of the

major reasons for the home owners' distress.

Now then, to the question, "What is the proper way for a home owner to proceed to build a home?"

If you were in legal difficulties to whom would you go? You would consult a lawyer, wouldn't you? If you were ill, you would consult a doctor; and so if you are contemplating building a home, which may be one of the largest expenditures and one of the most important undertakings of your life, you should consult an architect, who is the expert in this case.

He will not undertake personally to hire the men and construct your house; but like the doctor, he will give you the right prescription, and he will see that it is properly compounded. He will design your house, supervise the construction and the disbursing of your money, see that the contracts are properly prepared, and be there guarding your interests until the building is completed.

You will have a better home, and the record shows that the net cost of the house to you will not, ordinarily, be greater, and will often be less, than if you attempted to build without consulting an architect.

The architect is a professional man; he has nothing to sell but service. He is in the class with the doctor and the lawyer, and the education that he is required to have is only equaled by that of the doctor. Nowadays, an architect, starting with a special talent for design, requires from five to seven years at architectural school or college, and this is often supplemented by graduate work. After this he must have at least three years of practical experience in the field before he can take his examination for registration, and the laws of this State do not permit a man to practice as an architect unless he is registered. He is a professional man and his living depends on his reputation. He takes no money or fee from anyone but the owner.

He has behind him a powerful national organization with information and data that it has taken years to accumulate. He is recognized head of the building industry and he has at his command the resources of this great industry.

If you consult him, and it is necessary to do so, he can call upon various specialists to help him arrive at the proper solution to your problem.

Now, how does one get to an architect and what does it cost? An architect is selected as most any other professional man is. Make inquiries, or if you prefer, pick up your telephone book and look under the head of "Architects." You may go to an architect's office just as you would go to any other office. The American Institute of Architects recommends certain fees as being proper, and these are generally recognized in the building industry, and provided for by F.H.A. and other agencies as part of the cost. He will tell you what these are.

If you go to the architect and talk to him about all of this, remember, he is your doctor in this case; be frank with him. You will find that he will be glad to see you and will be sympathetic to your problem. He will invariably be fair, square and a pleasant person to deal with. Go over the whole situation with him and ask him to advise you, for while you may be building only once, he has built many times. As I said before, it will cost you nothing to go to his office and most architects will charge you nothing for a preliminary interview. Whether or not your relations go beyond that point will depend on you. But in any case you will have made the proper start.

In any problem connected with building a home, remember that the architect is the acknowledged expert in this field. You are, probably, embarking upon one of the most important transactions of your life when you build a home and you deserve the best advice that you can get; therefore, as the first step, consult the one man who makes a business of giving disinterested advice on this subject; the architect.

(10) *Broadcasts by Manufacturers of Building Materials*

(a) The American Rolling Mill Company paid this well deserved tribute to the architectural profession in its weekly Ironmaster's Talk over Station WLW, as long ago as April 1, 1930.

"You know, we don't always appreciate how valuable an architect's service can be. In fact, to his creative genius and painstaking supervision, we owe the towering skylines of our great cities, as well as the comfort of our homes. His contribution to the cultural development of man is hard to describe and difficult to estimate. Time was when the architect's services were limited to the monumental works of government, art, and science. But, today the influence of the architect and his handiwork have extended to commerce, industry, and the home."

On discovering this notice in a file copy of the Producers Council News Bulletin, the writer addressed a letter, March 2, 1939, congratulating the Company. In an appreciative, prompt reply, Mr. Wm. E. McFee, the Director, "Copy and Plans," said:

"You may be interested to know that in several of our radio broadcasts this season we have mentioned the architects in our commercial announcements, hinting that it is always good practice to see your architect when planning a building of any kind."

BOOKS AND PAMPHLETS

(5) *THE NEW HOME OWNER'S HANDBOOK*, by C. B. Smith. Published 1938 by *Modern Age Books*, New York City. 75c. 200 pages.

In this helpful publication for those contemplating purchasing a site and building a home — or those already owning a home — much good advice is given. At the beginning the following is said about "The Architect's Function":

"In building a new home the prospective owner should protect himself by paying the fee charged by an architect. In buying an old house he is protected by the appraisal of the property by men who know the character of the building and the trend of values in the section where it is located.

"The fee paid to the architect guarantees to the owner that he will get reasonable value for the money expended on building. He also will get plans, specifications which the contractor must live up to, and supervision while the construction is in progress which assures him that the kind and quality of materials specified are properly included in the building.

"The architect's fees are on a percentage basis. Their payment frequently represents more in increased value than the amount of the fees.

* * * *

"When a home is bought for cash the buyer must rely on his own judgment as to the desirability of its location. Unless he has had experience in building, he should pay a reasonable fee to an architect, a builder or a disinterested real estate dealer to give him an unbiased report on the value of the property."

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GRADUATE SESSION

For the second year, a collaborative summer session will be offered July 7 to August 16 by the Harvard Graduate School of Design and Cambridge Graduate School of Smith College, it is announced by *Henry A. Frost*, Chairman of the Summer School of Design at Cambridge, Massachusetts. Full information regarding the courses in architecture and landscape design may be obtained from the Summer School.

The summer curriculum is as follows: "Introduction to Housing and Town Planning," "Architectural Design," "Statics and Elements of Structures," "Resistance of Materials and Elements of Structural Design," "Landscape Design," "Principles of Landscape Construction," "Plant Materials," "Theory and Practice of Design," "American Architecture," "Romanesque Architecture."

GUEST INSTRUCTOR

It is announced that *Jan Reiner* will be guest instructor at the Rudolph Schaeffer Summer School in San Francisco, July 7 through 31, teaching a course in "Modern House Planning" described as, "contemporary architecture appreciation," "furniture and its arrangement," "excursions to modern homes."

PROKOSCH NAMED

The appointment of *Walther Prokosch* to the faculty of the Cooper Union Art School is announced by *Dr. Edwin S. Burdell*, Director of the Union. Mr. Prokosch is a member of the New York Chapter A.I.A. and his work was included this year in the recent "Forty Under Forty" at the Architectural League. He is a native of Madison, Wisconsin, and graduated from the Yale School of Architecture in 1934. In his practice he has specialized in residential work and prefabricated houses.

NEW ART BOARD

The formation of the *Commercial Art Studios Board of Trade, Inc.*, composed of New York studio owners and operators is announced. More than 40 members attended the first dinner and business meeting of the organization, May 5. An office has been opened at 101 Park Avenue (the Architects' Building) to serve those who have charge of studios and employ commercial artists.

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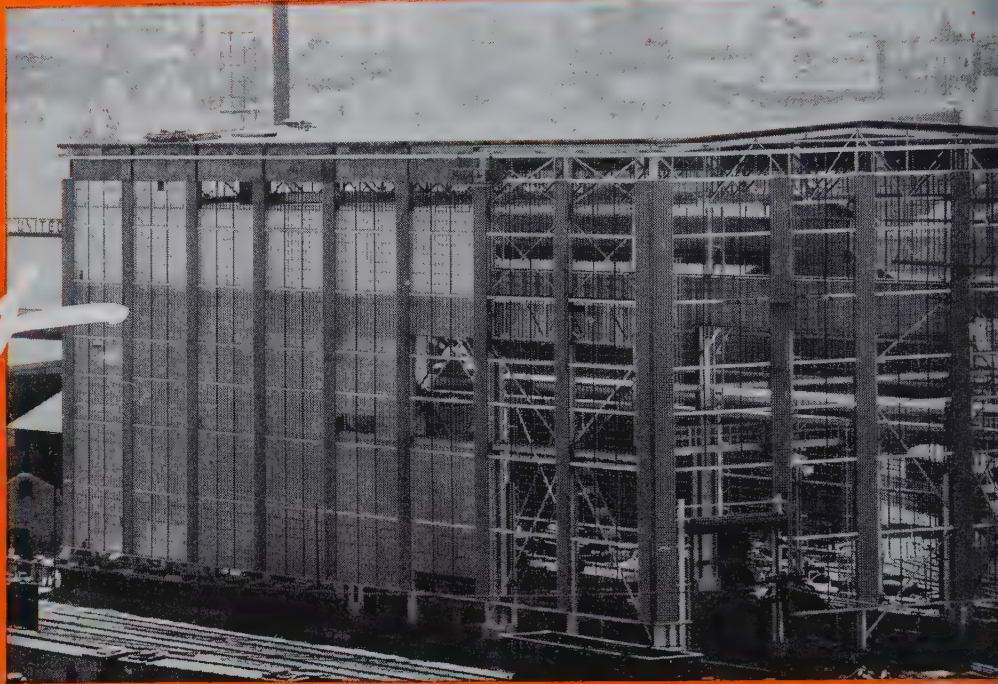
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QUESTION: Why should architects and contractors prefer Truscon steel windows to other makes?

ANSWER: Primarily because of uniform high quality and the further fact that Truscon has the equipment and experienced shop personnel to render adequate service under today's trying conditions.



QUESTION: Suppose a window job is located where the corrosion hazard is a factor that must not be overlooked. What would Truscon recommend?

ANSWER: Ordinarily Bonderizing and Truscon's baked-on shop coat of paint are enough to correct the condition. If the hazard is acute, Truscon would

recommend windows made of Toncan* Iron sections. Toncan Iron is a highly corrosion-resistant alloy of iron, copper and molybdenum and is available at slight additional cost.



QUESTION: Where can complete information on Truscon windows and other products be found?

ANSWER: In 1941 SWEET'S . . . 80 pages of specifications and details. Individual product catalogs are also immediately available upon request.

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ARTICLES

GREENWICH BOYS' CLUB	PHELPS BARNUM	371
HARLEM BOYS' CLUB	LOUIS E. JALLADE	379
COMMUNITY CENTERS	TALBOT F. HAMLIN	385
CHICAGO BOYS' CLUB	CHILDS & SMITH	393
DEMOUNTABLE COTTAGE	TVA	397
POINT OF VIEW	SCHELL LEWIS	401
LIGHTING INTERIOR SURFACES	{ JAMES J. OBERHAUSEN HARRY H. SCHEID	411
CLOSING AN ACTIVE SCHOOL	DEAN E. BOSSANGE	427
MONTHLY WASHINGTON REPORT	A. D. TAYLOR	433
DEFENSE WORK BY STUDENTS	ARNOLD PERRETON	435

PLATES

VACATION HOUSE	FELIX C. BONNET	395
SCENES IN GREECE	MADAME NELLYS	407
THREE SMALL HOUSES	FREDERICK HODGDON	418

THRESHING FLOOR

LETTERS AND DISCUSSIONS BY R. C. RUNYON, JULIAN STREET, FRANK W. BAIL, ANTONIN RAYMOND, FREDERICK J. WOODBRIDGE, HAMPTON WHITE, JORGE GONZALEZ-REYNA, ALLEN R. KRAMER, AND PAUL PIPPIN	9
--	---

SELECTED DETAILS

THE WORK OF WILLIS N. MILLS, WILLIAM CLEMENT AMBROSE, PAUL THIRY, PERRY M. DUNCAN, AND GEORGE S. STEELE	421
---	-----

PUBLIC RELATIONS

A SECTION EDITED BY D. KNICKERBACKER BOYD	25
---	----

DATA SHEETS PREPARED BY DON GRAF

DETAILS OF FARM SPRINGHOUSE; STADIUM SEATING; BREAST AND RETAINING WALLS; SHUFFLEBOARD COURTS	429
---	-----

HERE, THERE, THIS, AND THAT

NEWS FROM THE FIELD, COMPETITION ANNOUNCEMENTS, AND BOOK REVIEWS, ETC.	16
--	----

COVER DESIGN AND TYPOGRAPHY BY GUSTAV JENSEN

PENCIL POINTS

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ARCHITECTS AND A NEW ERA

EDITORIAL COMMENT BY CHARLES MAGRUDER

The Voice of the Architect is not very loud in the Land these days. It seems curious when vast sums of cash, energy, and impatience are being spent right in his own province, that we have not heard the Architect's orders shouted above all others. The whole world is conscious of the din of hurried activity in the United States. As the noises are tuned to the hum of industry, as the ear-splitting protests against the price of War's intoxication are drowned by yanking the bung from the cask, we will listen more intently. We may yet hear the Trained Planner directing those diggers and riveters.

We haven't been fooled when we see splashed across newspapers and magazines such familiar banners as BLUEPRINTS FOR POWER or DESIGN FOR DEFENSE or PLAN BIGGER INDUSTRIAL PLANT. It is no use to say smugly, "Ha! The Architects are at it again." They are not. Those words were stolen in broad daylight from the Architect's vocabulary, either by an uncaring headwriter who wanted to inspire public confidence in what is being done or by those who would supplant the Architect in our vital Defense Program. It is not the first time the profession has been robbed; but it could be the last time!

Jobs have been snatched from the Architect's own drafting-board by enemies with no more powerful Secret Weapon than a loud voice. The rival Engineers have team-chanted "We Are Efficient" until they believe it themselves. The Industrial Designers, some of them as skilled in design as they are forward in business, have sometimes brandished the work of architectural men they employ, to win jobs and confidence away from Architects. The members of the profession have been outraged, to be sure, and have called executive sessions of their chapters and associations to berate each other and the interlopers, adopt sharp-worded resolutions, and otherwise waste steam that might have propelled their Case before the public. Time spent reviling competitors, within and outside the profession, has been time lost. And now that reviling itself has been pushed into history—the chapter con-

cerned with the era that ended on the night of May 27, 1941—and the trumpeting reactionaries are becoming only silly echoes.

When the President of the United States proclaimed an Unlimited Emergency, there was the end of an era and none sorry to see the last of two decades of Economic Adolescence, except professional wailers. Now it's away with the hopes and pursuits of Peacetime, unless they can be readily drafted and adapted to the nation's need. There is the immediate job to be done; beyond it, the ultimate goal of a better Post-War America. The gigantic project demands prompt, effective action by those who can contrive bulwarks. Those who can see the social and economic implications *must* locate the defenses where they will serve as foundations of the future. They must anticipate and prepare for the goal of long-term planners; not permit digressions even amid time of alarms. Untrained but vigorous men can "get things done" but the technical planners could make a step forward.

Prior to the outbreak of the present war, members of the Royal Institute of British Architects evolved superb defense plans and talked eloquently of them. But when the emergency came many of them were set to checking the estimates and material requisitions of the Contractors who had landed the Defense Jobs. Now others are at work on plans for rebuilding whole towns that have felt the full fury of the Blitz. They will have something to say about the next England, because they are getting the approval of authorities now. The comparative situation in this country defies statement, since few know exactly how Architects now at work on defense got their jobs, why others as well-qualified are ignored, or why Government spokesmen boasting of utilizing latent resources seem deaf to appeals to draft technical skills. The same month that brings demands for more draftsmen, we receive notice that the Council of one of our largest Universities has decided to close its architectural school. The men already trained have all the more responsibility, if Post-War America is to be better and fairer built.



THE GREENWICH BOYS' CLUB—BY DWIGHT JAMES BAUM AND PHELPS BARNUM, ASSOCIATED ARCHITECTS

THE BOYS' CLUB BUILDING PROBLEM

The movement for the provision of adequate Boys' Club facilities has advanced impressively since the organization of Boys' Clubs of America, Inc., in 1906. There are now 352 of these clubs spread through 197 communities in 38 States. Twenty-one additional buildings are in project form and the future will undoubtedly see many others added to the ever-growing list. The total boy membership at the present time is 308,867. The influence of the clubs has a high social value in the reduction of juvenile delinquency and crime, and more positively in the development of good citizenship. Several recently completed buildings are shown in the following pages; namely the Greenwich (Connecticut) Boys' Club, the Harlem Boys' Club (on West 134th Street, New York), and the Valentine Boys' Club in Chicago. These buildings all have the very latest equipment. The National Organization, through continued research and experience, has developed much specialized equipment and data, which is available to those interested in Boys' Club buildings. Every architect who does one of these buildings is furnished with an unusually complete and detailed program, including the data on equipment, optimum dimensions, etc. Responsibility for the design itself rests, of course, with the architect, but his work is greatly facilitated by the completeness of the information furnished at the outset of the project



Gottscho

GREENWICH, CONNECTICUT, BOYS' CLUB — ENTRANCE DOOR

THE GREENWICH BOYS' CLUB BUILDING

DWIGHT JAMES BAUM AND PHELPS BARNUM

The new Greenwich Boys' Club Building was designed in close collaboration by associated architects, Dwight James Baum and Phelps Barnum. After Mr. Baum's sudden death, the work was carried on by Mr. Barnum with the continued cooperation of Mr. Baum's office, whose associates now practice as the firm of Thiesen & Slingerland.

The problem, as the architects viewed it, was not only to satisfy the requirements of a most modern and fully-equipped building as laid down by the program of Boys' Clubs of America, but to do this in such a way as to provide an appropriately unpretentious and homelike atmosphere, free of the hard institutional character frequently encountered in such establishments. For this reason, and also because of the Connecticut Colonial traditions of the community, the design was worked out in close conformity to New England precedent. The plan arrangement arrived at suited both the site, on a slight eminence facing southeast directly down Greenwich harbor, and the desirable relation of each activity space to the control desk.

The disposition of the main two-story building in the center, with game room-auditorium on one side, gymnasium on the other and natatorium on the back, resulted in a well-controlled plan, and an exterior which, due to its division into main building with lower wings is intimate and friendly in scale, and yet due to studied proportions and well-executed brickwork, is both dignified and harmonious. The treatment of the gymnasium wing is worthy of note.

Careful study was given throughout to the

design of detail, a matter to which both of the architects attached due importance. Color schemes within the building are at once cheerful and practical, the dark woodwork showing a minimum of soil.

The swimming pool deserves special mention as representing the latest and best engineering design. It is of the water level deck type, with balancing tank arranged to catch the overflow which is purified and filtered and recirculated, effecting an economy not only in the water used but also in the heat needed to warm it.

The club building was made possible through the generosity of Mr. and Mrs. Albert H. Wiggin, the donors, who are residents of Greenwich. Mr. Wiggin is a Director of Boys' Clubs of America. Their daughter, Mrs. Sherburne Prescott, who has long been interested in the welfare of the Greenwich Boys' Club, and Mr. William E. Hall, President of the National Organization, also deserve credit for their efforts on behalf of the project. The club, organized in 1911, has a membership of about 900 boys and has been under the directorship of John T. Tracy since its inception.

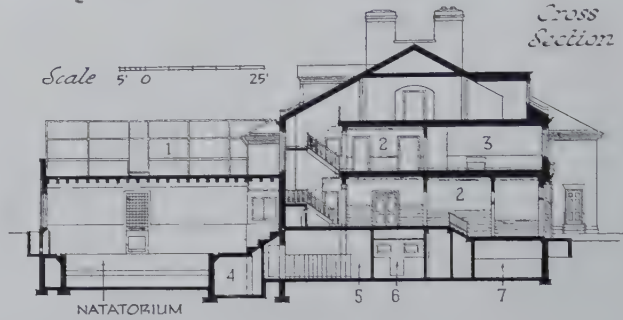
The building was built by Hegeman-Harris. It is of light steel frame construction with reinforced concrete slab floors and cinder block walls faced on the exterior with Connecticut River, water-struck brick. Consulting Engineers included Jaros, Baum & Bolles; Smith & Silverman; and William Wilson. The architects acknowledge the special aid of William P. Campbell, in charge of Building Service, Boys' Clubs of America.



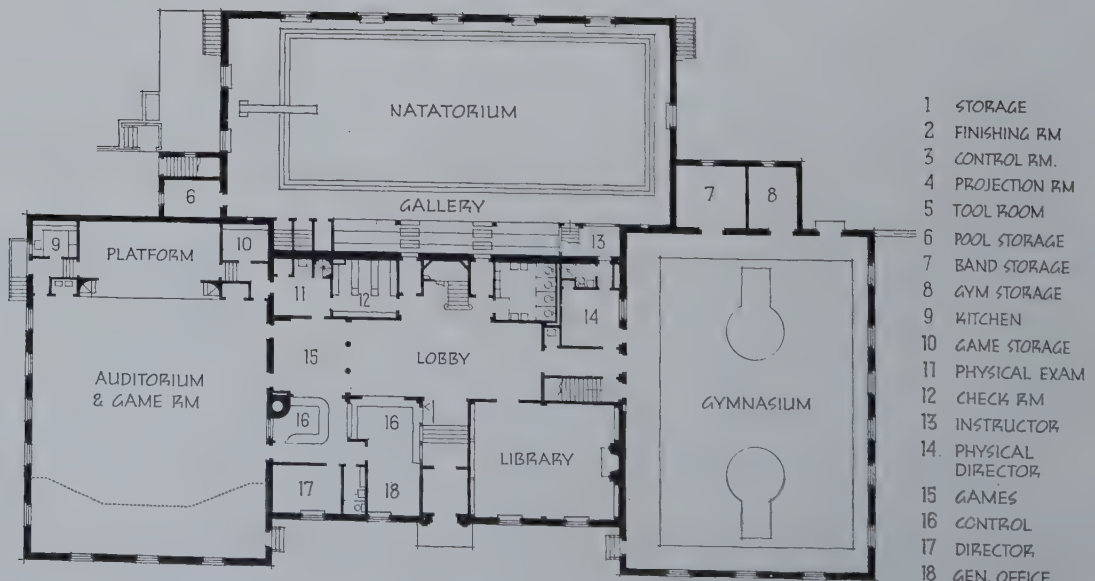
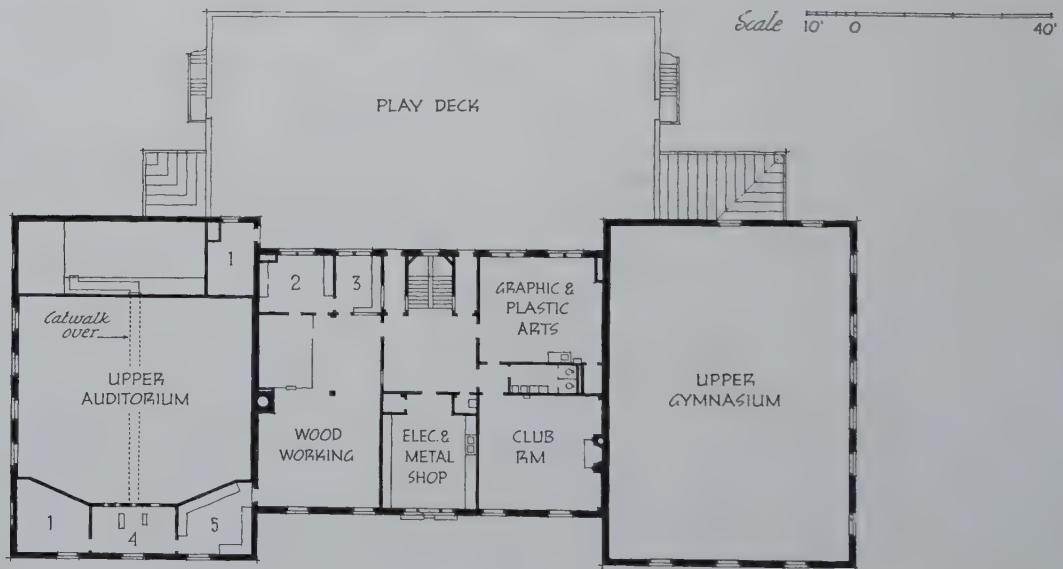
Longitudinal Section

- 1 WIRE ENCLOSURE
- 2 HALL
- 3 ELECTRIC SHOP
- 4 LAUNDRY
- 5 LOCKER RM
- 6 FOOT BATH
- 7 TOILETS
- 8 EQUIPMENT RM
- 9 WOODWORKING
- 10 LOBBY
- 11 SHOWER ROOM

Scale 5' 0" 25'



Cross Section



- 1 STORAGE
- 2 FINISHING RM
- 3 CONTROL RM.
- 4 PROJECTION RM
- 5 TOOL ROOM
- 6 POOL STORAGE
- 7 BAND STORAGE
- 8 GYM STORAGE
- 9 KITCHEN
- 10 GAME STORAGE
- 11 PHYSICAL EXAM
- 12 CHECK RM
- 13 INSTRUCTOR
- 14 PHYSICAL DIRECTOR
- 15 GAMES
- 16 CONTROL
- 17 DIRECTOR
- 18 GEN. OFFICE



THE ENTRANCE LOBBY OF THE GREENWICH BOYS' CLUB, LOOKING TOWARDS THE GAME ROOM, WITH THE CONTROL DESK AT THE LEFT. WOODWORK IS A DEEP BLUE GREEN, ASPHALT TILE FLOORS A MARBLEIZED MIXTURE OF RED, YELLOW, AND BLACK. CEMENT PLASTER WALLS AND CEILING ARE PARCHMENT COLOR



Photos by Gottscho



THE LIBRARY, ABOVE, IS DONE IN NATURAL COLOR PINE, AND WAS DETAILED IN THE SPIRIT OF THE ORIGINAL YALE LIBRARY AT NEW HAVEN. FLOORS ARE PREDOMINANTLY DARK BROWN. THE CLUB ROOM, BELOW, HAS DEEP COLONIAL RED WOODWORK AND MARBLEIZED ASPHALT TILE FLOOR, AS IN LOBBY



Photos by Gottscho



THE POOL, OF MOST MODERN WATER LEVEL DECK DESIGN, HAS BLUE TILE WAINSCOTING WITH CORK TILE ABOVE AND BETWEEN CEILING BEAMS OF EXPOSED CONCRETE. VARIEGATED VITREOUS TILE WAS USED FOR BORDERS AND POOL DECK. GLASS BLOCK WINDOWS. THE AMPLE GYMNASIUM IS SHOWN BELOW



Photos by Gottscho



THE GAME ROOM IS USUALLY CROWDED BUT THE ACOUSTIC CEILING MAKES THE INEVITABLE NOISE TOLERABLE. THE EQUIPMENT IS COLLAPSIBLE AND MAY BE STORED ON LONG TRUCKS UNDER THE STAGE. OUTDOOR GAMES ARE PLAYED ON THE INDUSTRIAL TILE SURFACED DECK OVER THE SWIMMING POOL



Photos by Gottscho



Photos by Gottscho



THE GRAPHIC AND PLASTIC ARTS ROOM, THE ELECTRIC AND METAL SHOP, AND THE WOODWORKING SHOP ON THE SECOND FLOOR ARE ALL FINISHED DURABLY WITH PAINTED CEMENT BLOCK WALLS AND PAINTED CEMENT FLOORS. EVERY THINKABLE SAFETY DEVICE PROTECTS USERS OF MACHINES. A GREAT VARIETY OF ACTIVITIES KEEP THESE ROOMS BUSY





IN A CROWDED DISTRICT OF HARLEM, THIS BOYS' CLUB BUILDING PROVIDES A POTENT CORRECTIVE AGAINST JUVENILE DELINQUENCY. AS ITS FAÇADE INDICATES, IT HOUSES MANY ACTIVITIES. AMONG OTHERS, IT IS CONSTANTLY USED AS A COMMUNITY CENTER FOR NEIGHBORHOOD ADULTS. FULLY EQUIPPED EXCEPT FOR A SWIMMING POOL (A CITY NATATORIUM IS ACROSS THE STREET) IT IS SAID TO BE THE FINEST NEGRO BOYS' CLUB IN THE UNITED STATES. PRESENT MEMBERSHIP CAPACITY IS 3,000 BOYS

HARLEM BOYS' CLUB—LOUIS E. JALLADE, ARCHITECT

THE HARLEM BOYS' CLUB

LOUIS E. JALLADE, ARCHITECT

The Harlem Boys' Club, designed by Louis E. Jallade, Architect, presented a somewhat different problem from that of the Greenwich club. Located in a congested section of Harlem, the world's biggest negro community, it was required to have a membership capacity of 3,000 boys, for whom recreational, vocational, athletic, and health facilities had to be provided.

The site is on a playground, belonging to the Children's Aid Society and extending from 133rd Street to 134th Street between Fifth and Lenox Avenues, in the once notorious "Beale Street" district. A higher building was originally contemplated, to occupy a corner of the playground, but by providing play space on the roof equal to the ground area occupied by the building, a lower structure extending the full length of the north side of the playground was found to be possible and the most practical scheme.

The building contains every element for a full program of Boys' Club activities with the exception of a swimming pool. The New York City pool just across the street to the north takes care of this nicely, however, at a considerable saving of space and expense for the club. Three entrances from the street conveniently provide segregated access to an automobile shop, to the main lobby with control desk, and to the auditorium. The last-mentioned room is available for neighborhood social affairs and entertainments and is arranged so that it can be operated as a separate unit when the occasion demands. An extra large stage is provided so that pageants and choruses are facilitated.

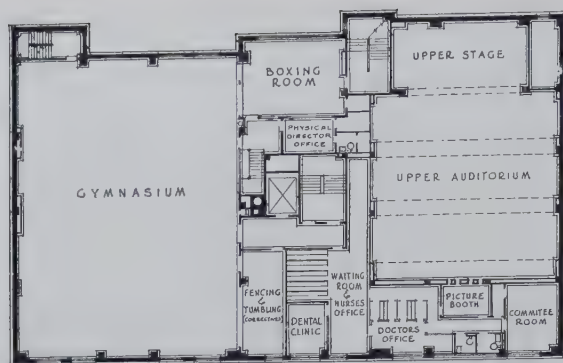
There are dressing rooms for both boys and girls backstage. A motion picture projection booth also is provided for the auditorium.

The gymnasium and its accessory areas include two practice basketball courts, and a playing court of standard junior high school size. A boxing room, completely equipped, bespeaks a natural pride in accomplishments of negroes in this specialty. Shower and locker rooms also are provided.

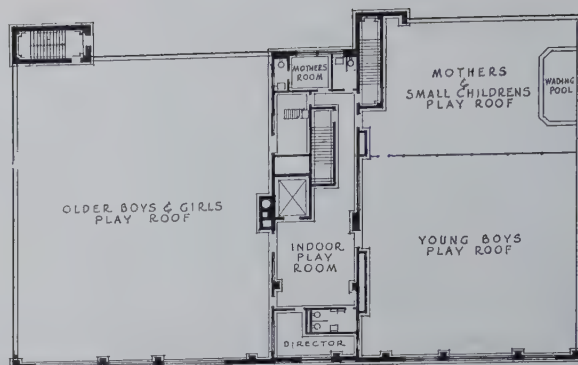
Vocational shops, for the benefit of the older boys, are equipped for instruction in auto mechanics, building maintenance, upholstery, and clothes pressing. A model cafeteria and a new shop for working with wood and plastics are features of the set-up.

The building is fireproof, built of substantial though economical materials, and cost \$371,000 to erect. The steelwork is designed to permit extra stories later. The exterior is of yellow and orange brick above a granite base. Windows are in steel sash and entrances are oak and bronze.

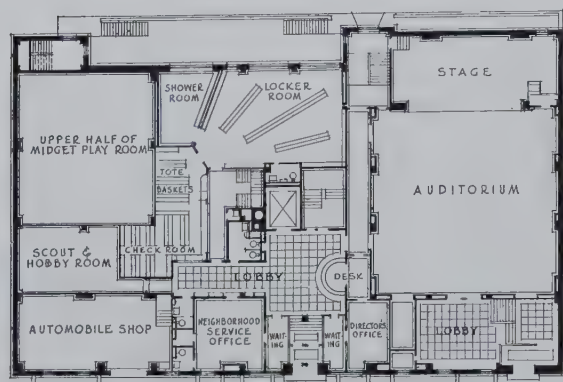
Sponsored by the Children's Aid Society, the Boys' Club building costing \$371,000 was made possible by a gift from the Charles Hayden Foundation, a bequest from the late Mary de Peyster Carey, and a gift from the estate of Gertrude S. Thomas. There was also a gift from the Rotary Club of New York, earmarked for auditorium and gymnasium equipment. The importance of this building as a neighborhood center—particularly the auditorium, medical, dental, and psychiatric facilities—is stressed by George Gregory, Jr., former Columbia University athlete, who is the Director.



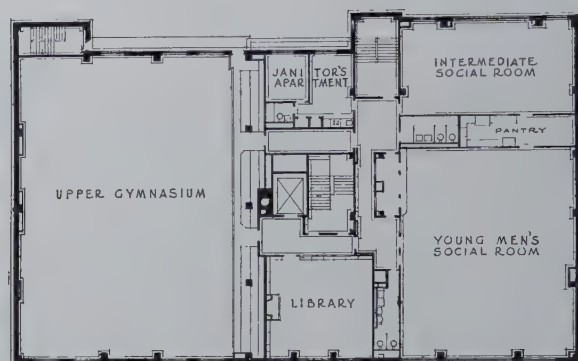
MEZZANINE FLOOR PLAN



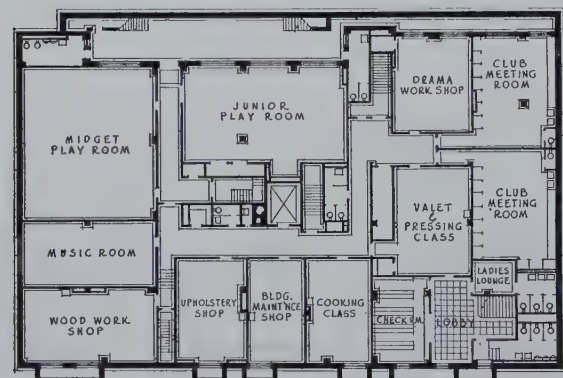
ROOF PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN



BASEMENT PLAN

PLANS AND A SECTION OF THE HARLEM BOYS' CLUB SHOW THE DISPOSITION OF SPACES TO PROVIDE FOR A MULTITUDE OF ACTIVITIES. THE PLAY ROOFS COMPENSATE FOR THE AREA SUBTRACTED BY THE BUILDING FROM THE PLAYGROUND SITE

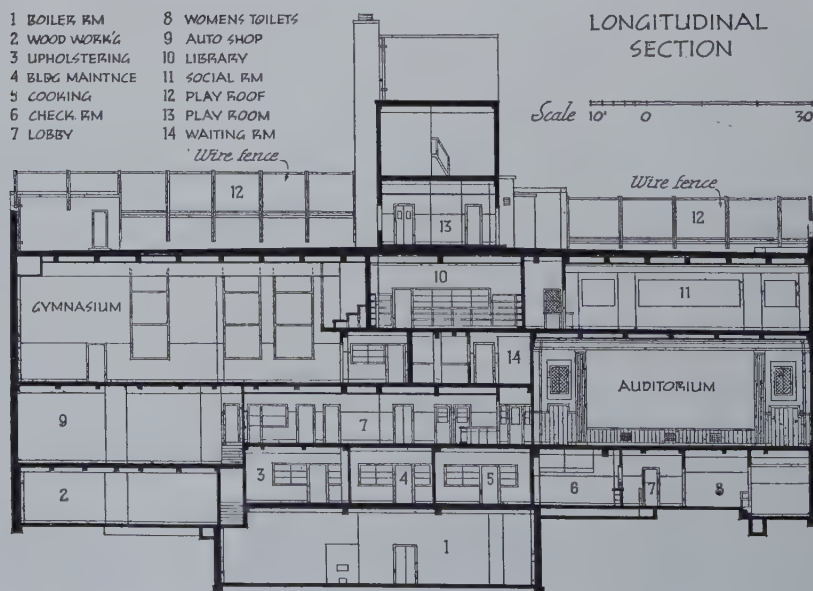


LOUIS E. JALLADE
ARCHITECT
597 FIFTH AVENUE, N.Y.C.

- | | |
|-----------------|-------------------|
| 1 BOILER RM | 8 WOMEN'S TOILETS |
| 2 WOOD WORKS | 9 AUTO SHOP |
| 3 UPHOLSTERING | 10 LIBRARY |
| 4 BLDG MAINTNCE | 11 SOCIAL RM |
| 5 COOKING | 12 PLAY ROOF |
| 6 CHECK RM | 13 PLAY ROOM |
| 7 LOBBY | 14 WAITING RM |

LONGITUDINAL SECTION

Scale 10' 0 30'





THE YOUNG MEN'S SOCIAL ROOM IN THE HARLEM BOYS' CLUB HAS TWO SHADES OF GREEN LINOLEUM FOR THE FLOOR, WITH WALLS OF WARM GRAY PLASTER AND AN OFF-WHITE CEILING. IT IS USED FOR GAMES AND SOCIAL MEETINGS. THE LIBRARY, BELOW, HAS MAPLE FURNITURE WITH WOODWORK OF THE SAME COLOR. FLOOR IS TWO SHADES OF TAN LINOLEUM. LEATHER UPHOLSTERED PIECES ARE BLUE



Photos by Adolph Study, Jr.



THE MAIN CLUB LOBBY AND THE AUDITORIUM LOBBY BOTH HAVE FLOORS OF GRAY AND CREAM TERRAZZO OAK WOODWORK STAINED GREEN, AND GREEN PAINTED METALWORK. WALLS ARE OF PLASTER



Photos by Adolph Studly, Jr.



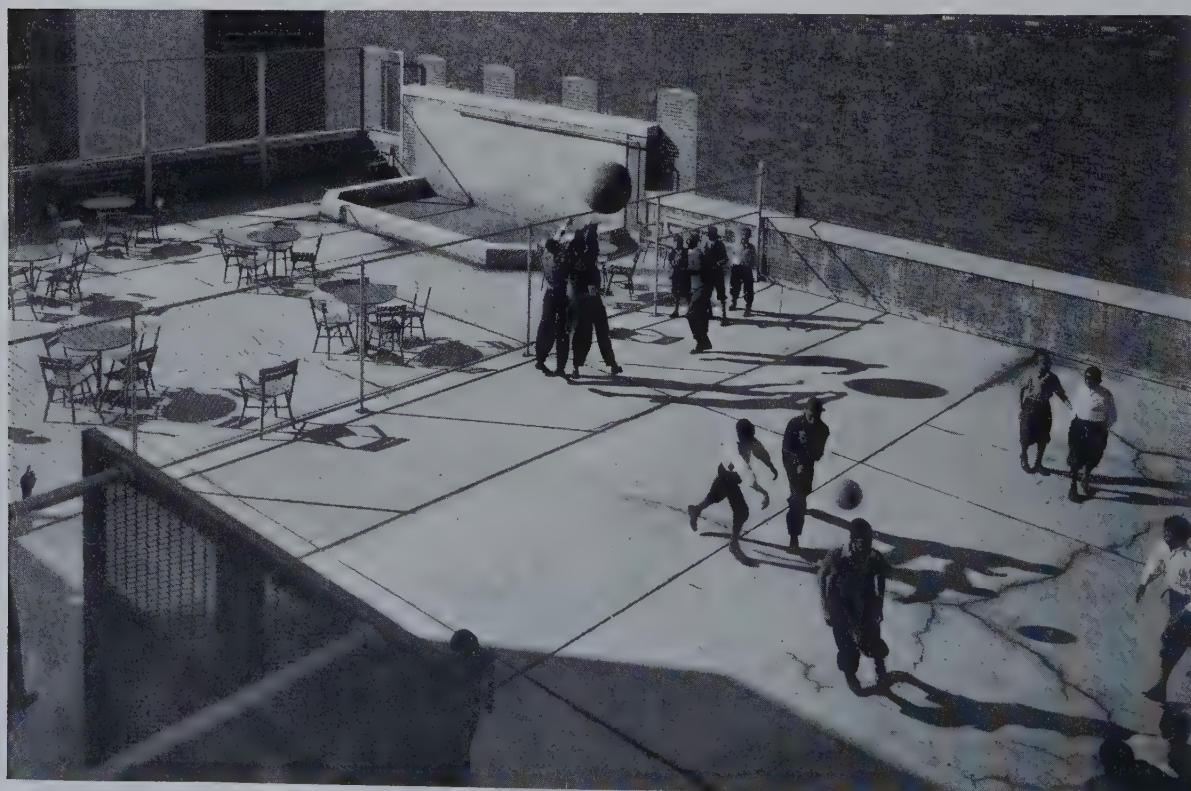
THE WELL-EQUIPPED GYMNASIUM HAS A TILE WAINSCOT AND BRICK WALLS ABOVE. THE AUDITORIUM, MUCH USED FOR SOCIAL GATHERINGS, DANCES, ENTERTAINMENTS, ETC., HAS BEEN PLAINLY TREATED



Photos by Adolph Studly, Jr.



THE JUNIOR PLAYROOM OF THE HARLEM BOYS' CLUB IS LOCATED IN THE BASEMENT. ITS WALLS OF TAN GLAZED TILE AND FLOOR OF CEMENT, PAINTED LIGHT RED, GIVE IT PLEASANT WARMTH AND RESISTANCE TO HEAVY WEAR. ONE OF THE PLAY DECKS ON THE ROOF IS SHOWN BELOW WITH A PORTION FENCED OFF FOR USE BY MOTHERS AND SMALL CHILDREN, WITH WHOM THE CURBED WADING POOL IS POPULAR



Photos by Adolph Study, Jr.

COMMUNITY BUILDINGS

BY TALBOT F. HAMLIN

Men are gregarious animals and, left to themselves, develop inevitably all sorts of methods of social intercourse or entertainment. They play games, they hold meetings—not so much to win the game or because the purpose of the meeting is by itself of world-shaking importance, but largely because they are by nature social animals. They find mutual help and self-enlargement in these activities, out of which grow religions, governments, cultures.

A community center is merely the answer that architecture makes to this universal impulse, by furnishing places where these social activities may best be carried on. In times past, when communities grew slowly and naturally, these gatherings worked out for themselves all sorts of different shelters, perhaps scattered through several buildings. There were (and often still are) in many rural towns, a town hall, a grange hall, a church, a school—all of which shared between them the responsibility. At the town hall, large meetings, concerts, lectures, sometimes even plays and movies were presented. At the grange hall, the women met to gossip or to sew, the men to discuss crops and agriculture; in the evenings the hall would echo with the shrill notes of the village fiddler, the clomp of boots, and the booming voice of the dance leader calling the figures of the Portland Fancy or Hull's Victory. At the church, the mission circle and the sewing circle met weekly, and periodically—especially at harvest time in the fall, and in the spring—church suppers or strawberry festivals were held. To this traditional social life industrialization has largely been the

death sentence, and men and families, gathering in unexpected and uncared for masses in industrial towns, find no opportunities for this natural give-and-take of social life. As the condition of industrial towns, and particularly of new communities anywhere, is in a way artificial, so many of its expressions must today be definitely planned and in that sense artificial as well. A community only exists when there is some common feeling among its members, and the basis of this common feeling must be born in social exchange. Community feeling is universally recognized as one of the great means toward political, social, and psychological health. Fundamentally, the community center or the community building is thus not merely an architectural framework for social exchange, but also a necessary addition to our American life.

In the old days the pioneer was perhaps lonely, but frequently lonely by choice, and nearly always surrounded by the challenge and the beauty of natural surroundings. In the present day, again and again the solitude of the pioneer is forced upon thousands of people in congested and limiting urban surroundings, so that leisure becomes painful or actively disintegrating. The community center is, then, an attempt to give leisure back to the people as a creative force, to abolish this artificial solitude in the midst of the multitude, to direct energies into channels useful both socially and individually. It is in an analysis of this purpose that the basis of the program lies.

Seen thus, any active and vital community center will necessarily have three sides: The



THREE VIEWS OF KENILWORTH VILLAGE HALL

first, perhaps the most important, is the club function, based on mere sociability; the second is the function of active recreation; the third, the development of creative hobbies. To house all of these functions satisfactorily is an expensive matter, and therefore all sorts of attempts have been made at double use of existing buildings as community centers, especially schoolhouses. Now the all-day use of school buildings is basically desirable, but to many minds there remains an aura of set tasks to be done, set lessons to be learned; it is difficult to develop an easy social feeling in such surroundings. Churches, too, are often used for social purposes, as they were in the old days; but here again limitations are many. A building of another type is indicated.

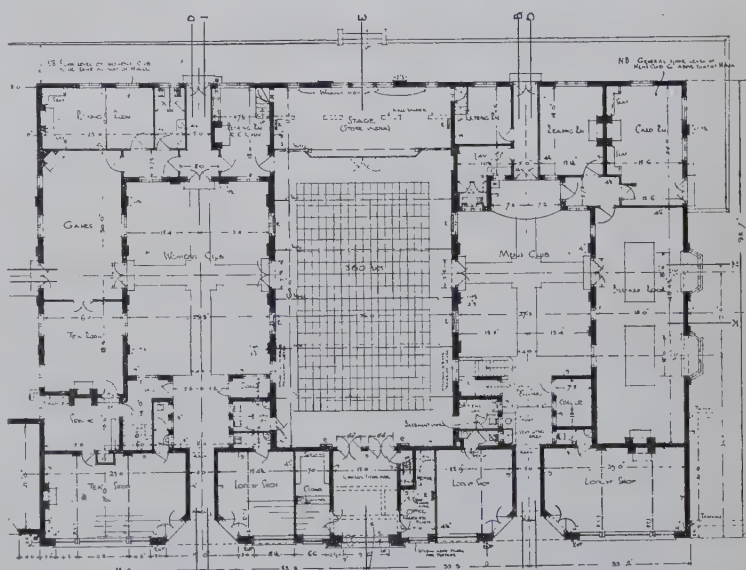
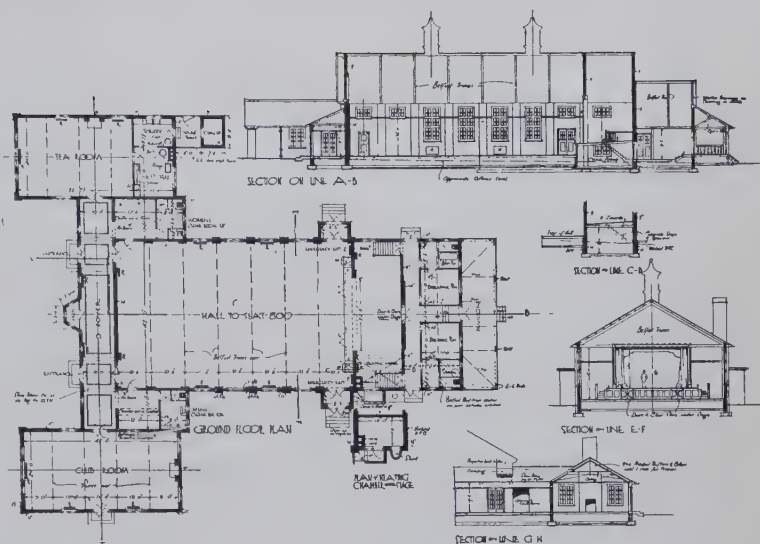
One early answer to the problem lay in the tremendous development of the social settlement movement at the turn of the century. The settlement house is a building made or altered specifically for these social purposes. It has gymnasiums for recreation, halls for lectures, clubrooms. It stimulates social activity in those who use it. And yet, over and over again, the social settlement has failed to produce the extraordinary results originally prophesied for the movement, for the simple reason that it was based on condescending philanthropy. There are, of course, notable exceptions, but the fact remains that it is difficult to build a real community feeling on a structure of private gifts.

For this reason, many of the most interesting early social centers grew up in middle-class environments rather than in the industrial areas. These buildings followed a simple program—a large, inexpensive hall, sometimes with a quite highly-developed stage and dressing-rooms, and with a kitchen arranged for serving teas, party refreshments. Such a building, with a porch all the way around, is the casino at Christmas Cove, Maine, a pleasant shingled building erected perhaps thirty years ago. On one side is a group of tennis courts, on the other a little rustic swimming pool. In the old summer-resort days it was the center of the social life of the summer people there.

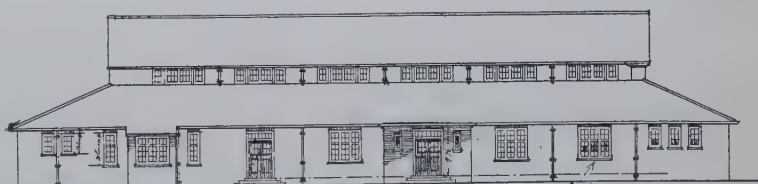
A more important all-year-round example was the village hall of Kenilworth, Illinois, by George Maher. This spreading low building, with its interesting porch entrance separating auditorium and lounge-library, is a distinguished example of the search for creative form that characterized so much Chicago architecture early in the 20th Century. The influence of Sullivan, and perhaps of Wright also, is strong in its design; yet it is an independent creation.

The interiors of the Kenilworth hall also are excellent in their free and informal charm. A community hall is better if its architectural lines are not too set or conventional. Austerity is the last quality to be sought; instead, the ideal is an interior completely flexible, easy to decorate for dances or Hallowe'en parties or similar occasions, with wall materials not easily damaged or defaced in the applying of these temporary decorations, and yet in its unadorned state a place still pleasant in color and shape for lectures, for concerts, or for plays. This perhaps is the reason for the comparative failure of some ambitious attempts in settlement houses and the like; there is about them a kind of almost grim solidity, hostile to simple human gaiety.

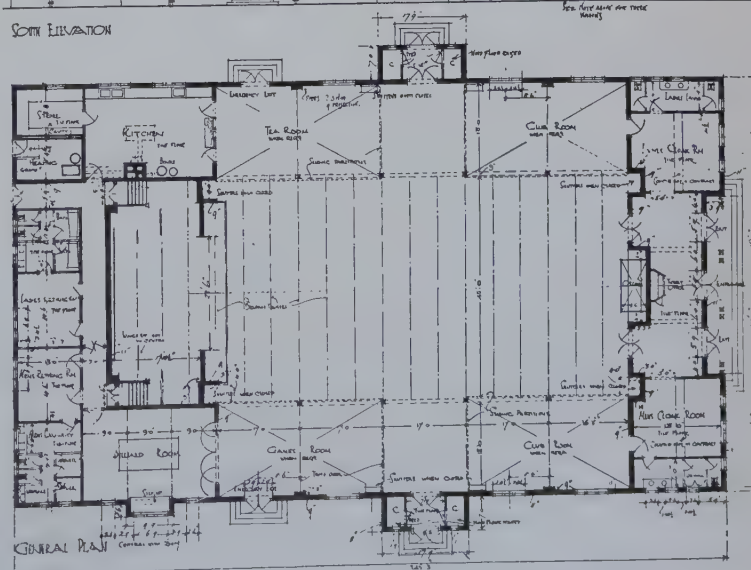
The need for a community center is manifestly greatest in brand new communities or new aggregations of homes such as those produced by any large-scale housing movement. The English in their wartime housing during the last war realized this well and took care that new industrial towns like Gretna and Eastriggs, temporary though they were in part, should be well furnished with community facilities. Thus at Gretna there was not only a community hall with tearooms, clubrooms, and game rooms, and a kitchen admirably and flexibly arranged around a large auditorium 45' x 85' in size, but also an "Institute" with a smaller hall 40' x 60' which could be used as a gymnasium, reading and smoking rooms, a billiard room on the first floor, and clubrooms for women's clubs above. In the hall, the smaller rooms were divided from the main hall by sliding accordion doors, so that the whole could be thrown open into one space.



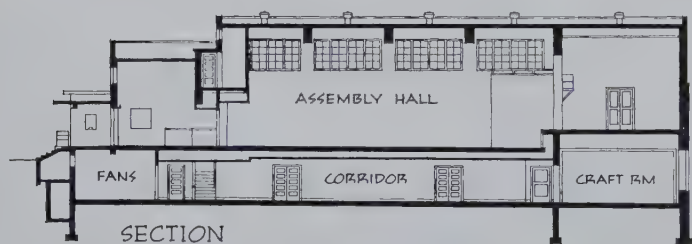
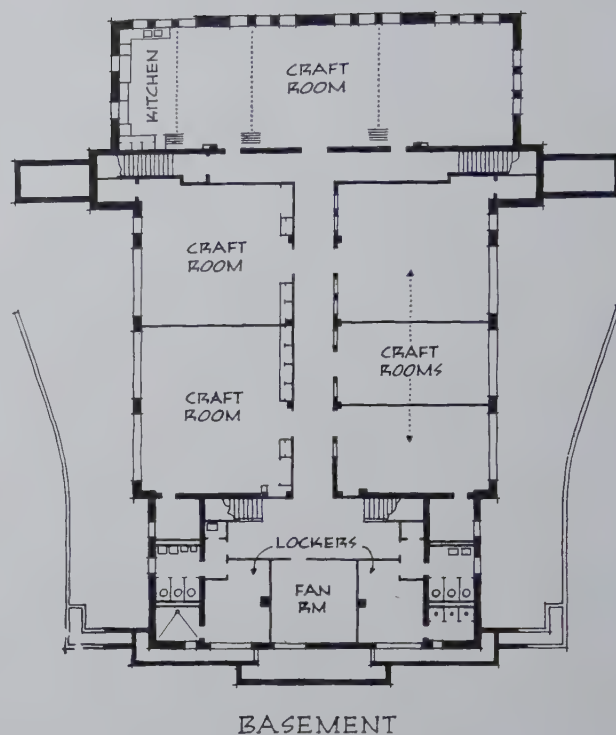
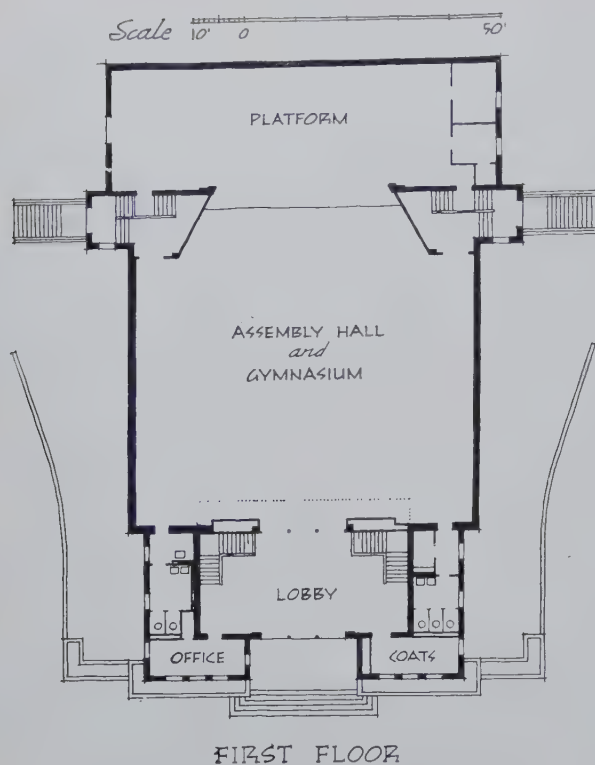
EASTRIGGS HALL (ABOVE) AND INSTITUTE PLAN



SOUTH ELEVATION



GRETNA PUBLIC HALL (INDUSTRIAL COMMUNITY)



THE COMMUNITY HALL AND THE CHILDREN'S CENTER OF THE QUEENSBRIDGE PROJECT IN NEW YORK CITY ARE SHOWN HERE AND ACROSS-PAGE IN PHOTOGRAPHS BY A. F. SOZIO. THE PLANS AND SECTION OF THE COMMUNITY HALL (ABOVE AND LEFT) SHOW THE SIMPLICITY OF THE SOLUTION. THE ARCHITECTS FOR THE QUEENSBRIDGE PROJECT WERE WILLIAM F. R. BALLARD, CHIEF; HENRY S. CHURCHILL, FRED G. FROST, AND BURNETT C. TURNER



Many of our comparable housing developments lack community buildings as ample and as well fitted for the purpose as these, while in the new developments here the need is still as great. The Gretna facilities were in addition to large school buildings, but in many of the present housing developments in this country some school facilities (especially for the youngest children) have had to be furnished. Even where existing schools occur in the neighborhood, unless they are within the boundaries of the project itself as at Williamsburgh, it is important to provide nursery schools, kindergartens, and perhaps even lower-grade rooms, so that the youngest children may always be close to their homes and not subjected to the twice-daily hazard of crossing important automobile streets. Thus most of the present U.S. H.A. housing development community centers include a nursery school as well as social rooms for adults. Even in the case of Williamsburgh, with its immensely convenient school location, a nursery school room is furnished.

A different solution of the problem is that at Queensbridge, where a real town square has been opened up in the middle of the project, with a building containing a large community hall and craft and club rooms on one side, and directly across from it a wide,

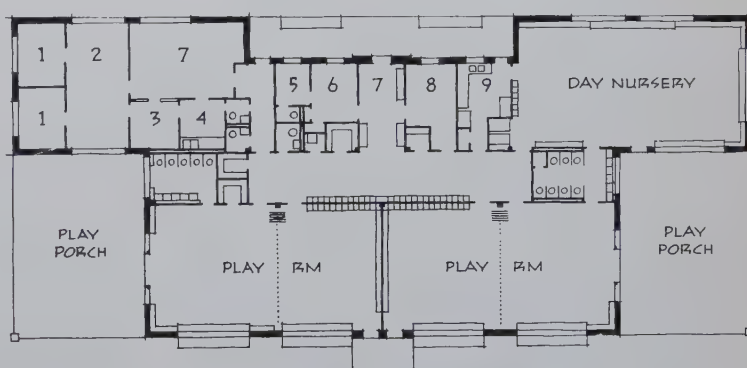


PLAYROOMS OF THE CHILDREN'S CENTER ARE PARTICULARLY SUCCESSFUL (SEE PHOTO, SECTION, AND PLAN)



- | | |
|------------------|----------------|
| 1 EXAMINATION | 5 ISOLATION RM |
| 2 WEIGHING RM | 6 CLINIC |
| 3 NURSES' OFFICE | 7 WAITING RM |
| 4 LABORATORY | 8 OFFICE |
| | 9 KITCHEN |

Scale 0 50'

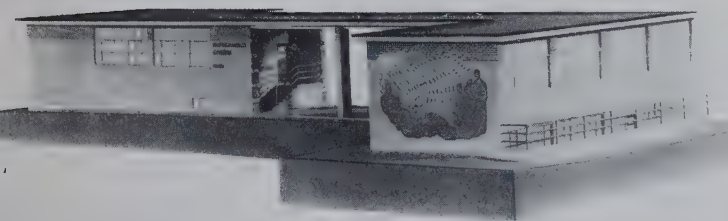


FIRST FLOOR





RED HOOK — BY POOR, DOMINICK, HOHAUSER,
LITCHFIELD, MCCARTHY, MOSCOWITZ, RUBIN, LEE



THE COMMUNITY AND ADMINISTRATION BUILD-
ING OF VALLEYVIEW, CLEVELAND PROJECT BY
HAYS, SIMPSON, & HUNSICKER, IS SHOWN HERE

spreading, and inviting school for smaller children. In Queensbridge, of course, one is dealing with a community of almost small-city size, and a population of around 12,500 demands a comparable size and elaborateness in its social center. Both buildings are interesting and direct solutions of their respective problems, and it is good to see expressed in their design the obvious desire to get away from any brutal impersonality of type. The low, spreading, flat roof of the children's school, the interesting relationship of its masses to the play terraces outside, the little sculptural details added here and there in the playground walls, and the lovely clear colors with which the rooms are painted all combine to make a whole which the children must love and their parents admire. In the auditorium and social building the mere size and simplicity of plan predicated a certain formality; but the use of a large and brilliantly conceived relief by Cesare Stea, overlooking the outdoor platform on the north side, takes away the impersonality and adds a note of real human pleasure. The relief is a simple and direct expression of the varied activities (study, sport, games) for the provision of which the community center exists. It is to my mind one of the most effective pieces of architectural sculpture yet produced by the Federal Art Project.

In Red Hook, where the development is of almost equal size, the community center is placed at one of the corners of the entire group, in order to serve not only the people in the project itself but the population in the immediately surrounding neighborhood. Red Hook was fortunate in having a park and large playground facilities for active outdoor recreation adjacent to it. It could thus concentrate its building program on the space needed for indoor social activities. It is interesting to note that, in every case where facilities have been furnished for clubs, crafts groups, and similar recreational activities, the necessary organizations to make use of them have sprung up spontaneously within the project itself, with only the slightest advice and leadership from the project management. The tenants are made to feel from the beginning that these community build-

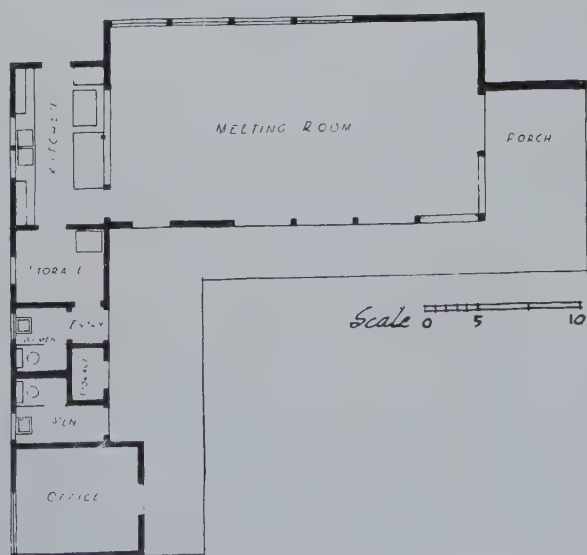
ings belong to them to use as they think best, and they have usually risen magnificently to the responsibility this conception has brought with it. Here one can see very readily the importance of the community center as a place for education in actual democracy. Here the people work out for themselves, in their clubs, little governments of, by, and for the people.

Another excellent example is the community building of the Valleyview Homes near Cleveland. Here the community center stands almost at the entrance of the project, to which it forms a kind of gate. The group is built on a steep slope overlooking a dramatic view of steel mills and distant hills; and the community building is so placed that as one drives or walks up to it one is at once confronted, through the open porch between its two separated portions, by this extraordinary view seen above the roofs of the project houses on lower levels. It is an amazingly dramatic conception, simply and brilliantly carried out, with decorative terra cotta enlivening the porch walls and giving just that touch of small-scale individuality which the scheme needs. The building itself is built on a slope, so that most of the basement on one side is well above grade. Advantage has been taken of this to place there, close to the playground and park level, the nursery schoolrooms. The community hall itself is immediately above this, occupying the entire mass of the building at the upper level on its side of the porch; the other portion across the porch is devoted to the project's administrative offices and smaller club-rooms. Like the whole of this development, the Valleyview community center, although small—perhaps over-small—for the population of the project, is brilliantly designed in relation to the site.

The further one gets from towns, the wilder the surroundings, and the more primitive the residences, the more necessary do highly developed social centers become. The Farm Security Administration has signally recognized this in the community centers it has designed and is designing for farm migratory and semimigratory labor groups. No reader of *The Grapes of Wrath* can ever



F.S.A. SEWING ROOM AND LAUNDRY BUILDING



F.S.A. COMMUNITY HALL, MINERAL KING RANCH



THE STUDIES ABOVE DEPICT TWO TYPES OF RECREATION BUILDINGS DESIGNED BY ELY JACQUES KAHN AND ROBERT ALLAN JACOBS FOR THE UNITED SERVICE ORGANIZATION, TO BE BUILT IN THE LARGE MILITARY ENCAMPMENTS OF THE COUNTRY. THESE BUILDINGS WILL SERVE TO REPLACE BOTH THE CAMP SOCIAL CENTERS ERECTED BY THE GOVERNMENT DURING THE LAST WAR AND THE "HUTS" BUILT BY RELIGIOUS GROUPS

forget the important part which the community hall, with its dances and its social opportunities, played in the life of the Federal migratory labor camp there described; but the newer camps have social centers much more highly developed, much more attractive in their actual architectural design, than this was. In almost every case sites have been chosen where trees exist, so that large trees overhang the community building and give it at once a note of invitation, a quality of being lived in. The buildings themselves are simple, necessarily; frequently of L or C shape, they comprise a large community hall, the administration offices, and frequently a communal laundry where family washing can be done efficiently and in pleasant surroundings. I think the imagination of the F.S.A. architectural office is nowhere more forcefully displayed than in this canny, practical arrangement, with its resultant development of sociability and the combination of all of these elements into buildings charming and unpretentious.

Of course, community centers somewhat different in plan but similar in purpose should be furnished in all large military encampments. During the last war, camp social centers were provided not only in the regular halls and recreation buildings erected by the government as part of the camp equipment, but also through the famous Y.M.C.A. and Salvation Army huts. These were frequently based on a program somewhat similar to that of the hall at Gretna—a place where dances and other entertainments could be held, complemented by a large canteen.

It is characteristic of the contemporary American system that this much of the program was put into the hands of extra-governmental agencies. At the present time plans for somewhat similar developments are going ahead through the United Service Organization, a combination of welfare organizations — Catholic, Protestant, and Jewish. Typical proposed buildings for the U.S.O. have been designed by E. J. Kahn and R. A. Jacobs and show how a program today considerably like that of the old "Y" buildings achieves in quite different form a more dramatic contemporary expression.

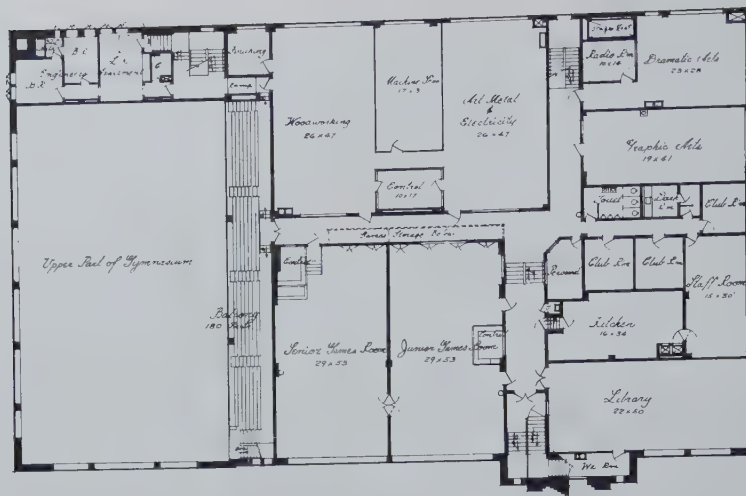


Hedrich-Blessing Photos

IN DEVELOPING AND STUDYING THE DESIGN OF THIS BUILDING OVER A PERIOD OF SEVEN YEARS, THE ARCHITECTS ENJOYED THE COLLABORATION OF THE NATIONAL ORGANIZATION OF BOYS' CLUBS OF AMERICA, MR. L. L. VALENTINE (THE DONOR), AND THE STAFF OF THE CHICAGO BOYS' CLUBS. CAPACITY IS PROVIDED TO HANDLE THE PROGRAMMED ACTIVITIES OF 1100 BOYS AT ANY ONE TIME, PLUS ADULT AUDIENCES TOTALLING 1200 IN THE AUDITORIUM, POOL, BLEACHERS, AND ROOF. THE PLANS, SHOWN OVERLEAF, INDICATE THE WIDE SCOPE OF ACTIVITIES POSSIBLE. ON THE ROOF A RECREATIONAL AREA 100 x 176 FEET IS EQUIPPED FOR BOTH WINTER AND SUMMER SPORTS. EACH DEPARTMENT IS ARRANGED FOR DIRECTIVE CONTROL OF BOYS' ACTIVITIES IN CONTINUOUSLY MAXIMUM NUMBERS IN LATE AFTERNOON AND EVENING HOURS AND TO ACCOMMODATE GROUPS OF ADULTS DURING THE MORNINGS. THE CLUB COST \$365,000 TO BUILD AND CONTAINS 837,590 CUBIC FEET. ALL MODERN FEATURES SUCH AS AIR-CONDITIONING, ACOUSTICAL CEILINGS, INSULATION, POOL SANITATION, AND FIREPROOFING ARE INCLUDED. THE TOTEM POLES, CARVED BY NORTHWEST INDIANS, REPRESENT TRIBAL SPIRITS



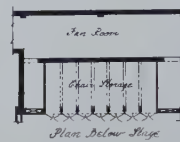
VALENTINE UNIT OF CHICAGO BOYS' CLUBS—BY CHILDS & SMITH



Second Floor Plans

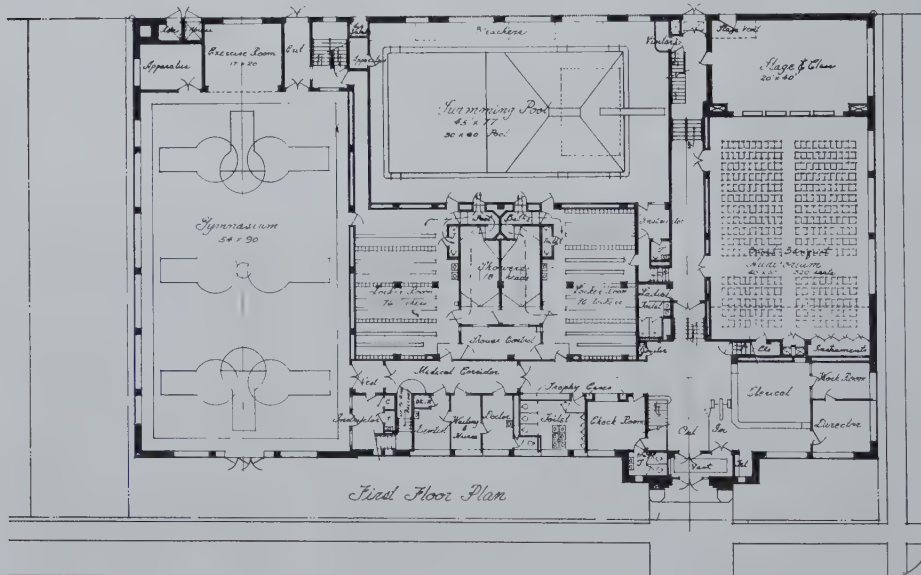


Plan of Intermediate Level



Plan of Lower Stage

Alley



First Floor Plan

West 34th Street

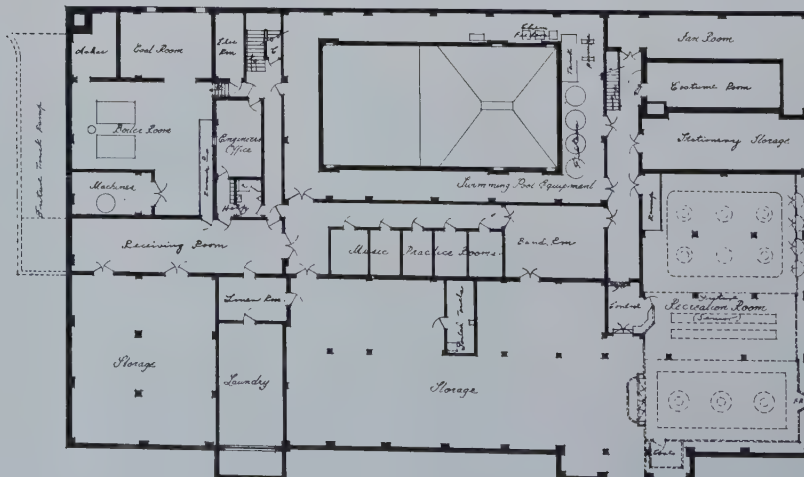


Indebted to



Valentine Boys Club
Chicago Illinois
Childs & Smith Architects Chicago

South Emerald Ave

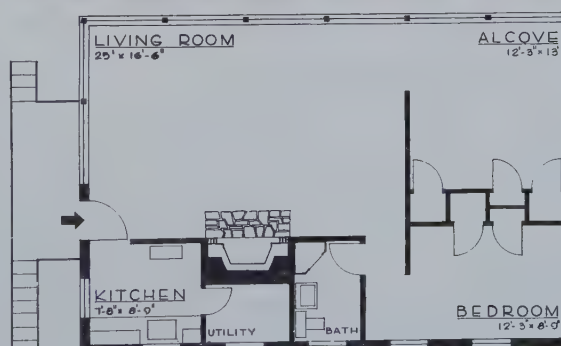


Basement Floor Plan

PLANS OF VALENTINE UNIT OF THE CHICAGO BOYS' CLUBS



A MODERN VACATION HOUSE DESIGNED BY FELIX C. BONNET FOR DONALD J. WILKINS OF CHICAGO. LOCATED ON A HIGH BLUFF OVERLOOKING LAKE MICHIGAN AT A POINT WHERE THE DUNES ARE HEAVILY OVERGROWN WITH PINE, CEDAR, AND EVERGREEN SCRUB, THE HOUSE IS TREATED IN BROWN AND TAN TO HARMONIZE WITH ITS SURROUNDINGS. THE CONTINUOUS CASEMENT WINDOWS GIVE AN UNOBSTRUCTED VIEW OF THE LAKE, THE BEACH, AND THE WOODS. TWO VIEWS OF THE LIVING ROOM ARE SHOWN OVERLEAF. THE WALL CONTAINING THE FIREPLACE IS OF ITALIAN TRAVERTINE, WHOSE WARMTH CONTRASTS WITH THE BLUES OF SKY AND WATER VISIBLE THROUGH THE WINDOWS. THE EXTERIOR IS OF CEMENT BLOCK ROUGHLY PLASTERED AND PAINTED LIGHT TAN. ROOF IS RUST-COLORED ASPHALT SHINGLES



SUMMER HOUSE
DESIGNED FOR
DONALD J. WILKINS
OF CHICAGO
FELIX C. BONNET
INTERIOR ARCHITECT & DESIGNER
20 E. DELAWARE PL. CHICAGO ILL.

VACATION HOUSE NEAR CHICAGO—DESIGNED BY FELIX C. BONNET



TWO VIEWS IN THE LIVING ROOM OF THE VACATION HOUSE DESIGNED BY FELIX C. BONNET FOR DONALD J. WILKINS OF CHICAGO. THE HOUSE IS LOCATED NEAR STEVENSVILLE AND OVERLOOKS LAKE MICHIGAN



NEW DEMOUNTABLE COTTAGES

DEVELOPED BY TENNESSEE VALLEY AUTHORITY

TVA has developed a factory-built portable cottage, six of which have been produced at Muscle Shoals, Alabama. They are for use at Pickwick Dam, southwestern Tennessee, to complete a license agreement in connection with the operation of reservation facilities. The Authority has such an agreement with the Pickwick Company, a private corporation operating facilities at Pickwick Park.

The portable cottage was developed as a result of continuous studies conducted by TVA almost since its inception to work out the most economical means of housing workers temporarily employed at its construction camps. Earlier, the Authority had experimented with cinder-block construction, and dwellings built by that method are in use at Norris, Tennessee.

The new cottages are built in sections, each of which contains one complete portion of the building — floor, walls, ceilings, and roof, with electric wiring, light bulbs, plumbing; with bathroom and kitchen fixtures in place; windows, screens, doors, kitchen cabinets, electric cooking

plate, and refrigerator already installed and painted, ready for immediate use.

The smaller cottages are in three sections, the larger cottages in four. Each section is $7\frac{1}{2}$ feet wide, 22 feet long, and $9\frac{1}{2}$ feet high, and weighs about 3 tons. The sections are fitted together with bolts. The construction is wood frame with exterior of weatherproof insulating fibreboard.

Four workmen can assemble the sections into a completed cottage within 4 hours. The only parts of the cottages constructed on the ground were the supporting cinder-block piers. Dismantling can be carried out in as short a time as the assembling, and a cottage can be transported to another site with no loss except the slight cost of the piers.

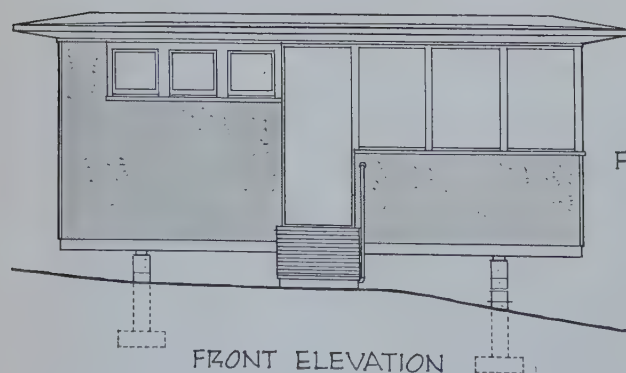
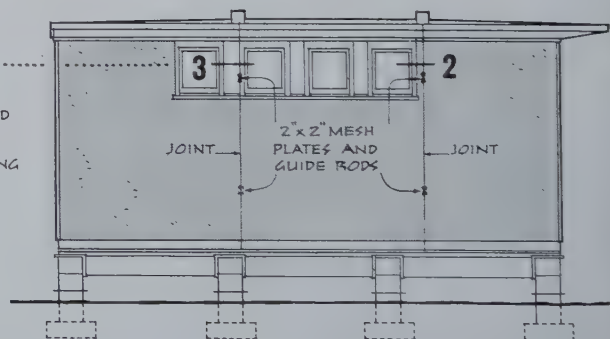
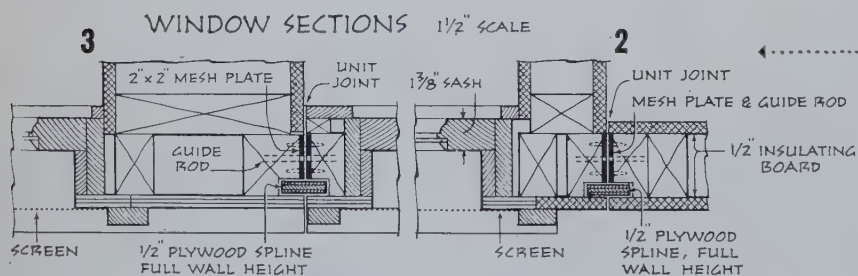
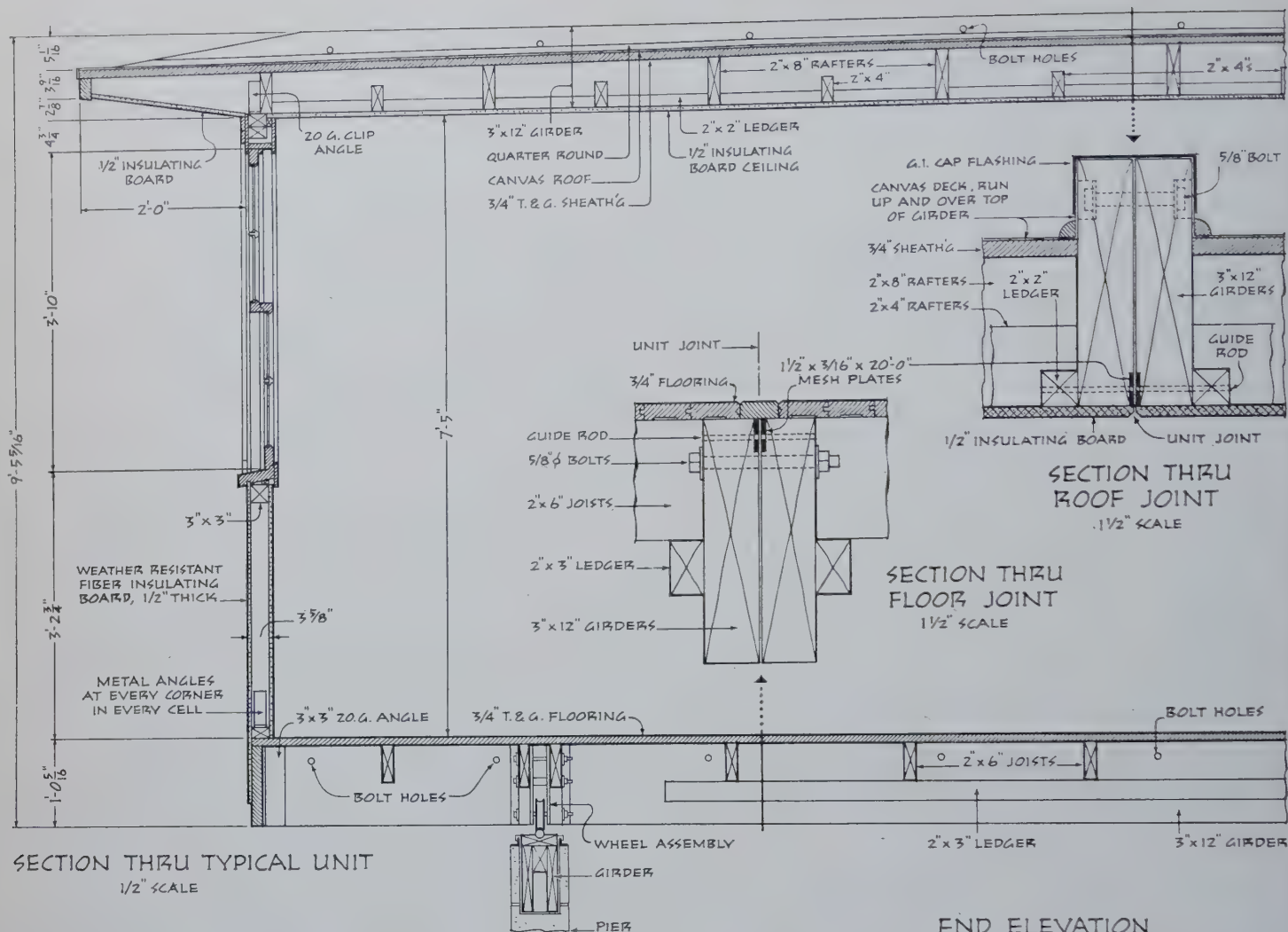
The single-cottage model consists of a combination living and bedroom, a kitchen, bath, a small bunk room, and a screened porch. For vacation use it will accommodate four to five persons. The larger cottage is a duplex, and on each side of the central partition is one large room, a kitchen, and a bath. The cottages

have flat, wide, overhanging roofs, and either of two exterior color combinations are used, buff with tan or gray with green.

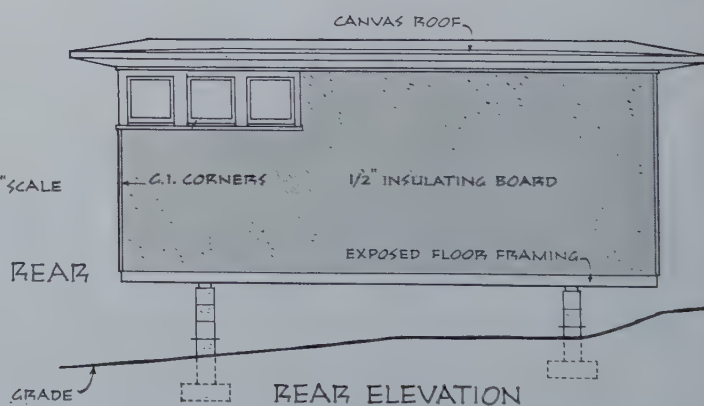
The six portable cottages produced by TVA—four of which are duplex—were turned out in the Authority's machine shop at the Shoals, by production-line methods common to industrial mass production. All equipment used is standard to the average woodworking shop, lumber yard, and builder.

In the Shoals machine shop, two duplex cottages can be manufactured simultaneously, a total of eight sections. Every section is mounted on small wheels, which in turn are mounted on tracks, so that the section can be rolled from one point to the next in the production process. Twelve to sixteen hours' working time is required to complete a section. The cost, including transportation and field assembly, promises to compare favorably with the cost of ordinary construction. The cabins were produced by building trades craftsmen working in their appropriate jurisdictions at prevailing wage rates.



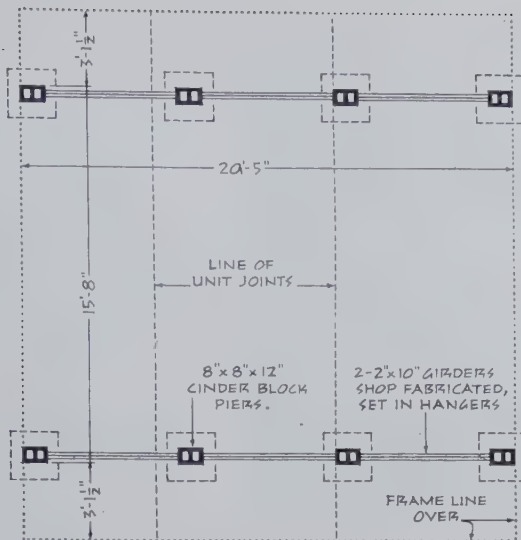
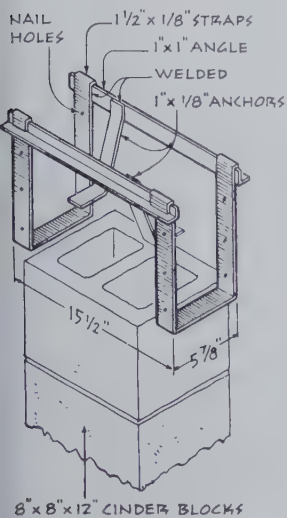


FRONT 1/8" SCALE



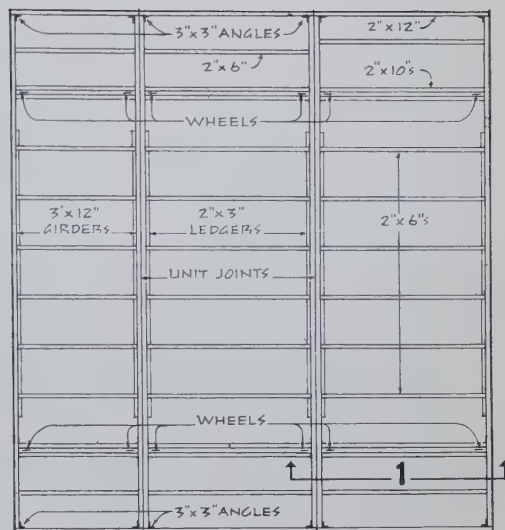
DETAILS OF TYPICAL DEMOUNTABLE, FACTORY-BUILT HOUSES

HANGER DETAIL over each pier

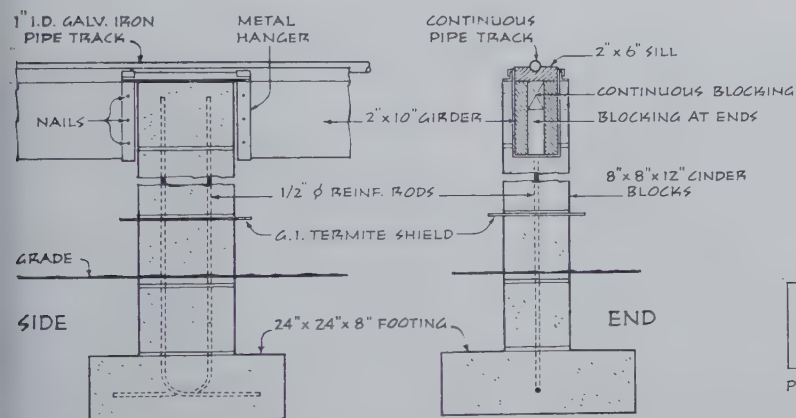


FOUNDATION and FOOTINGS

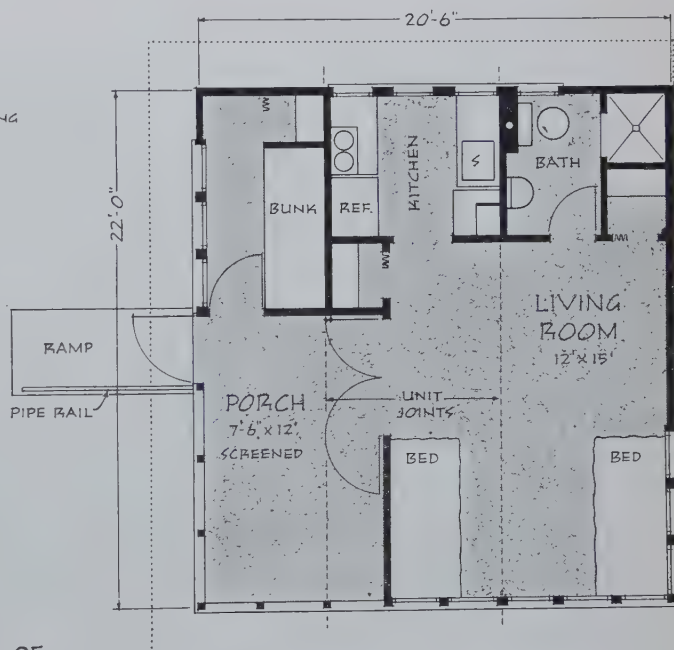
SCALE 1/8" = 1'-0"



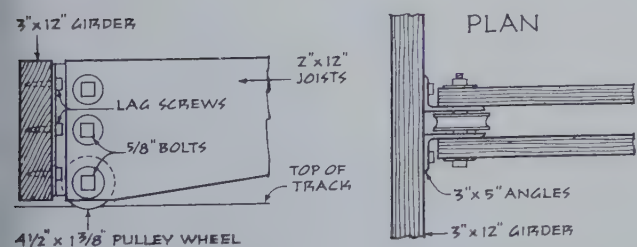
FLOOR FRAMING PLAN



DETAIL OF PIERS 1/2" SCALE

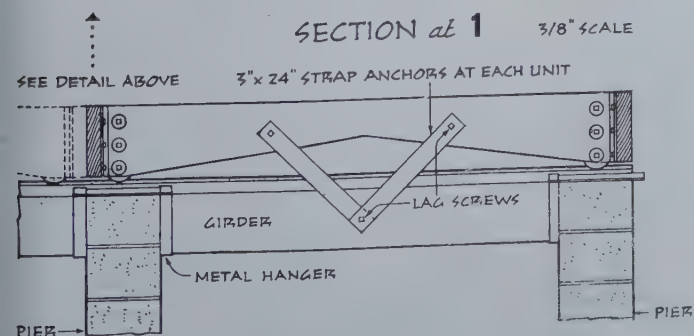


FLOOR PLAN

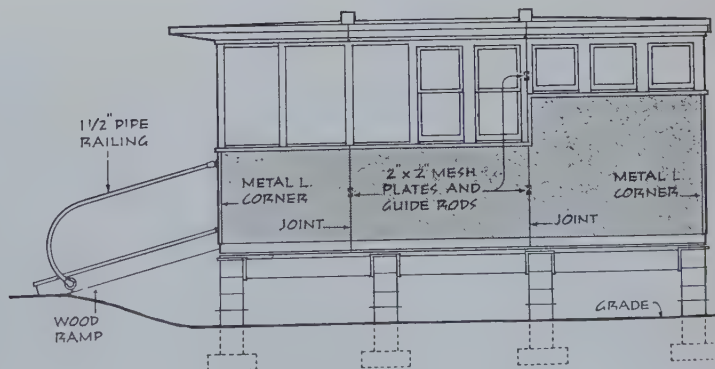


DETAILS OF
CARRIAGE
UNIT

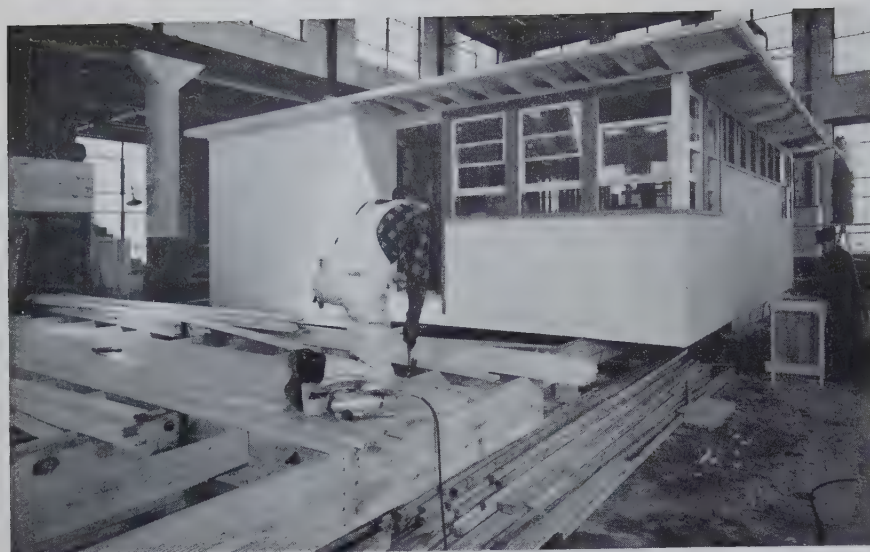
END ELEVATION 1/8" SCALE



SECTION at 1 3/8" SCALE



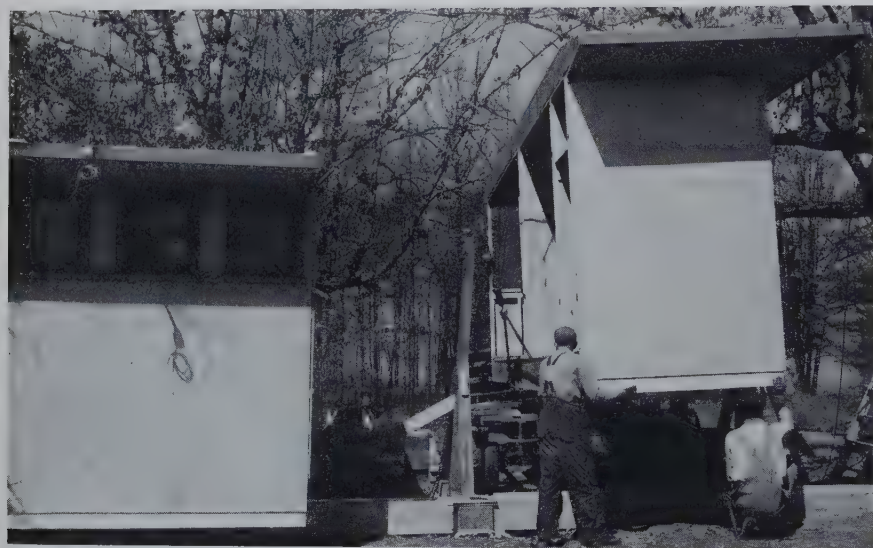
DESIGNED AND BUILT BY THE TENNESSEE VALLEY AUTHORITY



The portable cottages so far erected in Pickwick Park have been transported the approximately 60 miles from Muscle Shoals, some of the distance over rough country roads, in a standard truck trailer, one section at a time, in from 2 to 3 hours, with no evidence of racking. No special permit is needed for hauling the sections, since they come within the usual legal dimensions and weight of load.

It is thought that the methods used in building the portable cottages might have especial value in connection with defense or emergency housing. Large groups of low-cost houses built in this fashion could be quickly and easily removed from a location after the need for them had been satisfied, and made available to areas where housing deficiencies existed or where housing was below standard.

Development of the portable cottage was originated by Louis Grandgent when he was connected with TVA as Chief of the Architectural Section. It was completed by the Authority under the supervision of Carroll A. Towne, assisted by George L. Richardson, Harrison S. Gurnee and Woodruff H. Purnell of the architectural staff, Roland A. Wank consulting; and with the suggestions and active cooperation of the construction staff under W. B. Richardson. Mr. Grandgent, now on the architectural staff of the United States Housing Authority, at Washington, has been retained in a consulting capacity by TVA for the portable-cottage development.



THE TOP VIEW ON THIS PAGE SHOWS THE ASSEMBLY LINE, WITH ONE COTTAGE NEARING COMPLETION AND ANOTHER BEING STARTED. IN THE MIDDLE PHOTOGRAPH, ONE OF THE UNITS IS BEING RAISED BY A SIMPLE TACKLE FROM THE TRAILER, WHICH WILL LATER BE HAULED OUT SO THAT THE UNIT MAY BE LOWERED INTO PLACE ON THE TRACKS. IT IS THEN AN EASY MATTER TO ROLL IT TO THE NEXT UNIT, BOLT IT, AND PLUG IN ELECTRICAL CONNECTIONS

POINT OF VIEW IN RENDERING

BY SCHELL LEWIS

Architectural rendering might be well defined as portraiture of architecture, but a portraiture unique in that the subject exists only in the brain of the architect, and as suggested, more or less, in his drawings.

In order to visualize the building for the study of a portrait or "rendering," a number of perspective studies must be made from the plans, and if these need not be especially large or carefully drawn, they must at least be laid out and reasonably correct. This is at best a slow job, but there is no substitute if you are to get the best results.

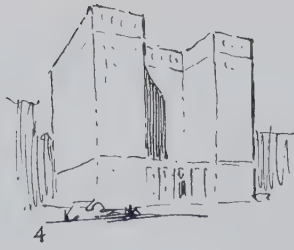
However, when the boss sings out, "Hey, Bill, we had better bat out a rendering of the Whoosis house, he's coming in tomorrow," poor Bill, who is the producing end of the editorial "we," has scarcely time for one perspective, let alone a series of them. With so many views possible, he is quite at sea as to which one to use.

An analysis of the problem will disclose, I feel, that most of the possible viewpoints will fall into one of a very few classes, and if the inherent advantages and drawbacks of each class are understood, the draftsman's problem is greatly simplified.

There are four of these classes, I would say. The first viewpoint (we will start in front and then walk around the building) is the full face, or what is commonly called the parallel or one point. This is the most balanced viewpoint with the dignity and order which of necessity follows, and, where these qualities are obvious in a design, it is certainly worth considering. The great drawback is that it shows none of the side of a building and therefore may give no indication of the mass, little more than a rendered elevation. I think it is worth noting here that Charles Platt, with his orderly designs, had a strong preference for this view, being quite content to trust to such things as chimneys, roof lines, etc., to suggest the mass of the building, which can often be done very successfully, as in Sketch No. 1.

A building with a U- or H-shaped plan is frequently troublesome in angular perspective, as one of the projecting wings so often takes undue prominence in the picture and forms unhappy combinations with the central mass, (2), so that the one point view is usually a good solution in this case (3). While the next two studies seem contrary to





4



5



6



7



8



9



10

this rule, (4) being decidedly better than (5), in this case we really have a building which has a dominating mass with the U-shaped plan quite subordinate. I am pointing this out to suggest that some discretion should be used in classification.

Another obvious use of this view is for a building that can be seen only from the front, due to enclosing court walls, or other structures as in (6). Note that this view need not be taken exactly on center or even be a one point for that matter, since some two point views actually fall into this class.

The second type of view is that one in two point angular perspective, with a small amount of the side showing but the major elevation receiving decidedly the greater attention. This is generally the best for the average subject, although by the same token apt to be the most commonplace.

The usual mistake in this view is in trying to show too much of the less important side, with the result that the interest is split between the two elevations, with the corner becoming too prominent (7 and 8). In (7) an attempt to show both the front and side entrances clearly has spoiled the quality of the building as a whole, (8) being a much better picture, with the suggestion of the side entrance still quite sufficient. As a general thing, the more you can stick to the important elevation the more successful the drawing will be, although occasionally some design — a gambrel-roofed house, for instance — may be better with a little more side showing.

Continuing our walk around the building, the third view would be that with a plan at 45 degrees, more or less. From what I have just noted, this might be assumed to be the worst possible view, and it usually is. Try to avoid it if you can. It is a picture with a corner trying to be the center of interest, and a tiresome equality of angles.

Sometimes this is the best that can be done, however. A long, narrow building, with the important elevation the narrow one is somewhat of a problem. A view emphasizing the important front, as in (9), gives a poor indication of the size of the building. (10), which does this, misses the "juice spot" of

the entrance. (11), more or less at 45 degrees, may most satisfactorily serve the purpose for which it is drawn, to explain all the points of the building.

Getting still farther around might seem to be to no purpose, as we merely feature the unimportant side, but this fourth view may, if well handled, have great possibilities. Sketch (12) does not seem very reasonable, but if you cover up most of the end with your hand you may see quite a picture in it. Say, something like (13). (14) is a subject and a view which, if properly rendered, could give a very pleasant sense of walking up the curved drive to the portico. You will note, of course, in these cases that the entire building has not been taken in, and were this attempted there would be no such interesting result. A building on a narrow city street, where the side does not exist (architecturally) may also be handled in this view, as in Sketch (15).

The eye line, or horizon, is a point to which most draftsmen seem to give little thought. They usually get it too high, seemingly with the idea that they can better show the paths, roads, etc. In a small building, this cutting the structure about in two, with half of the building above the eye and half below, is very unpleasant and decidedly misses what dignity the building may have. It makes it look petty, doll-house in scale, or gives the feeling that the observer is walking dizzily on stilts. See (16). The average small building is several feet above the street, and if you will glance through your photographs I think you will find in most cases the eye somewhere between grade and 3 feet above. This will give you a much better picture. Notice how much more restful the view is in (17) with the level base which the low eye-line gives.

Sometimes, of course, a building must really be seen at a high level. If this is the case, try to introduce into the picture the reason—if you can you will take most of the curse off this view, as in (18).

The distance of the station point is a question that bothers many who seem to crave some fixed rule, say twice the width of the building or something of that sort. I can see





17.



18.



19.



20.



21.

no such rule, nor think it desirable that there should be one, for this distance in its flexibility offers a wide range of opportunity to the draftsman. Too far away and you get a flat "telescope" view; too close and parts of the picture may be distorted. Yet even these extremes, usually bad, may sometimes be used to advantage. In (19), a "telescope" view, the large amount of space around the building, even if unrendered, suggests the open country in the simplest way. In a view at this distance the eye would naturally take in much more than the house. Curtail the borders of this view, as in (20), and this sense of space is lost and the unpleasant qualities of the view emphasized. If you want a drawing in which the building more completely fills the picture, one similar to (21) will be much better. If you have lost the feeling of space, you have gained something in dramatic quality, in the feeling that you are getting near enough to the building to be on speaking terms, as it were.

The other extreme might be a building on a narrow city street, with adjoining structures which cannot well be omitted entirely, but nevertheless must be indicated somewhat. By getting very close, even to the point of distortion of unimportant sections, we are able, or rather forced, to show very little of the surroundings and thus give a consistent picture of a building which would generally be seen in just such a view (22). In other words, before you fix upon the distance of the station point you should make up your mind as to what qualities you wish to bring out in your picture.

"Bird's-eyes," which are apt to be of groups of buildings, are in a class by themselves, but many of the foregoing observations are pertinent here. The dignity of the one point view still holds, (23), while the unpleasantness of a 45 degree view like (24), which would put a rectangular group balancing on its corner, is very pronounced.

Often the view which will explain a group to the best advantage is rather obvious, and the real problem is the height of the eye. A comparatively low eye level is apt to give the most pleasant picture, but may cause trees or structures to obscure rather essential

parts behind them. The high view will overcome this, but if too high may give a very disagreeable feeling as though you were falling over onto the picture, which, incidentally, will not become fully evident until the drawing is completely rendered. In a long, narrow group, which will give an extremely long and thin picture at best, it is possible to use a somewhat higher eye than with a more rectangular group.

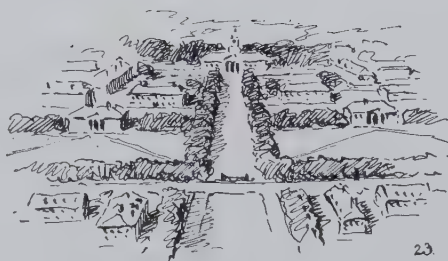
The gentle art of faking—of making the building, like the chorus lady with her powder and paint, “look like what she ain’t”—is partly a question of ethics to be decided by the captain of the ship and not the man at the wheel. Some phases of this matter may be reasonably discussed, however.

Obviously, in a view, say, up the mall at Washington, a tower which came over the Capitol dome could not be “faked” away. In a casual walk around a house, however, there might be a chimney at one point unpleasantly straddling a pediment. The bifocal vision of the observer and the accidental quality of the combination, however, would leave it completely unnoticed, even though a photograph from that point would not be especially desirable. In a perspective, if the point of view is otherwise good, there could be little objection to moving the chimney a trifle.

Another question concerns the impossible point of view. It is unreasonable to expect to give in a two-dimensional indication, especially in black and white, an adequate expression of a three-dimensional object—the loss of bifocal vision is too great a hurdle. The impression an observer will have after a walk past a building will be quite different from what any one picture could give — photo or drawing. The Architect, in displaying his finished work, can have recourse to a number of photos, but that is rarely practical in drawings. The one view must, perforce, tell the whole story, describe the general proportion and mass of the building, focus on the most important part, etc. That it cannot actually be seen as shown is of less importance, and an impossible view may be justified. After all, even the airplane view or photograph so commonly used today is



22



23



24.



25



26.

really an impossible view, for the human eye, at 200 M.P.H., could not possibly take in a fraction of what the photo shows.

Another case is that of an interior where a photograph may give, and usually does, an exaggerated idea of the length of a room. A perspective will do the same thing if extended to include all that would be seen with a wide angle lens. A view point that is really outside the room, like (25), by keeping the nearer parts in closer scale with the more distant, will give a truer impression of the room than (26).

The proper rule would seem to be to try, if possible, a true view—and if that fails, to use the other within reason. The real test should be the intent of the deceit, or perhaps the result, for a picture may well tell different stories to different people. Consider a typical photograph by the average layman. "An actual photograph, looks just like the

building," he will say. The same photo may make the architect wince when he remembers the beauty of the building itself. On the other hand, the picture that really suggests the qualities of the building to the architect may have been worked over until it is more of graphic art than photography, and may leave the layman merely wondering how he made it look like that.

I would like in closing to call attention to Mr. Otto Eggers' renderings. Whether or not you admire them as much as I do is of no importance, but as examples of well-chosen and interesting points of view they are worthy of closest study. And if you find that he has broken every "rule" that I have offered here, it will but call attention to something very important, that rules on subjects like this should be regarded as india rubber, and not cast iron, and to be stretched freely when you see any reason for so doing.



LIBRARY, CARDINAL HAYES MEMORIAL HIGH SCHOOL, NEW YORK—DRAWING BY OTTO R. EGGERS



FOR TWENTY-FOUR HUNDRED YEARS THE ACROPOLIS OF ATHENS HAS ENDURED, A LIVING SYMBOL OF MAN'S CREATION OF TIMELESS BEAUTY. HERE, IN THE SUPERB PHOTOGRAPHY BY MADAME NELLYS, ILLUMINED BY SUN UNDER STORM CLOUDS, ARCHED OVER BY THE RAINBOW OF HOPE, ITS BUILDINGS RISE TRIUMPHANT. THE DESCENDANTS OF ITS BUILDERS ARE IN DIRE NEED TODAY. THE GREEK WAR RELIEF ASSOCIATION ASKS FOR THE DONATIONS OF AMERICAN ARCHITECTS THROUGH ITS ARCHITECTS' COMMITTEE, WITH HEADQUARTERS AT 115 EAST 40TH STREET, NEW YORK

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ON SANTORIN, AN OLD VOLCANIC ISLAND, THE HARBOR IS THE OLD VOLCANO CRATER, THE MANY-COLORED PRECIPICE WALLS THE CRATER SIDES. TODAY ON MANY SEA-GIRT ISLANDS SUCH AS THIS, IN MOUNTAIN TOWNS, IN CITIES, THE GREEKS STILL LIVE. THEIR COMMERCE HAS BEEN LARGELY SHUT OFF, THEIR NATURAL ENTERPRISES BROUGHT TO A STANDSTILL BY A WAR THEY DID NOT SEEK



A THOUSAND YEARS AFTER THE BUILDINGS OF THE ACROPOLIS, THE BEAUTY OF THE MONASTERY CHURCH OF DAPHNI, WITH ITS SUPERB MOSAICS, SHOWS THE FLAME OF GREEK CREATIVENESS STILL BRIGHT, FOR BYZANTINE ART IS AN ART PRIMARILY GREEK. MANY BUILDINGS SUCH AS THIS ARE REMEMBERED BY AMERICAN ARCHITECTS WHO HAVE VISITED THE GREEK PENINSULA AS A NOT INCONSIDERABLE CONTRIBUTION TO THE WORLD'S ARCHITECTURE



THE TOWN OF PYRGOS ON SANTORIN REVEALS THE STRONG GEOMETRIC MASSES, THE SIMPLE VAULT-FORMS, THE WHITE WALLS OF GREEK ISLAND TOWNS, AND SHOWS IN ITS NARROW SLOPING STREETS AND FLIGHTS OF STAIRS HOW EVERY AVAILABLE SQUARE FOOT OF SPACE HAS BEEN FORCED INTO USE

INTERIOR SURFACES AFFECT LIGHTING

BY JAMES J. OBERHAUSEN AND HARRY H. SCHEID

Even lighting engineers, in their sincere efforts to attain higher levels of illumination, will often quibble about a difference of a small percent in the efficiency of a lighting fixture and be completely indifferent to the nature of ceiling, wall, and floor surfaces. This is unfortunate when one realizes these surfaces are equally important factors in determining the light intensity on the working areas. These room surfaces may be the controlling factors in determining the final *quality*—as well as the *intensity*—of the light.

The constant development of more efficient light sources makes possible, in the installation of artificial lighting systems, a steady approach to the ideal condition of natural daylight in intensity and quality. Nature's illumination is a standard to which the human eye has been accustomed through the centuries during which men lived out of doors. Until man can approximate this illumination in his interiors, seeing will continue to be an abnormal task—an effort resulting in fatigue, headaches, and eye failures among persons who are performing severe eye tasks over long periods of time under intensity and quality of illumination that ignore most of the factors that contribute to eye comfort.

It is easy to understand why human efficiency rapidly drops during a day of working under inadequate illumination. Out of doors the level of illumination may reach 10,000 foot-candles around midday and this is "white" light—the mixture of all colors in the visible spectrum—and the light that man has always had for his outdoor tasks. Compare this desirable condition with offices, factories, and even schoolrooms where the illumination levels may be as low as

5 foot-candles of artificial light containing perhaps only one or two of the spectral colors.

Manufacturers of interior finish materials such as paints, wall papers, paneling, and insulating interior finishes are making strides in the direction of adequate illumination. A new development is the identification of each product, or each color, as to its light reflection factor, and color permanence.

The color and reflectivity of ceilings, walls, and floors are important, since every surface the light strikes before it reaches the working level is an integral part of the illumination system. If maximum efficiency alone were the consideration, walls and ceilings would have only to be perfect reflectors. This doesn't mean that they would have to be mirrors. A mirror reflects an exact image of the light source itself. Here the light is concentrated when it should be diffused. Diffusion is desirable because artificial light sources are relatively bright in themselves and should never be used directly exposed. Consequently, direct reflections of these sources brought into view by reflection are also objectionable. A white mat surface can be made to reflect the same amount of light as a mirror, but it breaks up the light and scatters it in a diffused pattern around the room giving no "hot spot" reflections.

There are several paint manufacturers who indicate *reflectance factor* beside each color sample on their cards. This factor may be determined in several ways, which means that one maker's factor may differ from another's when the two paint colors appear identical. Any one can make his own reflection factors merely by using a reliable foot-candle meter. Face the instrument

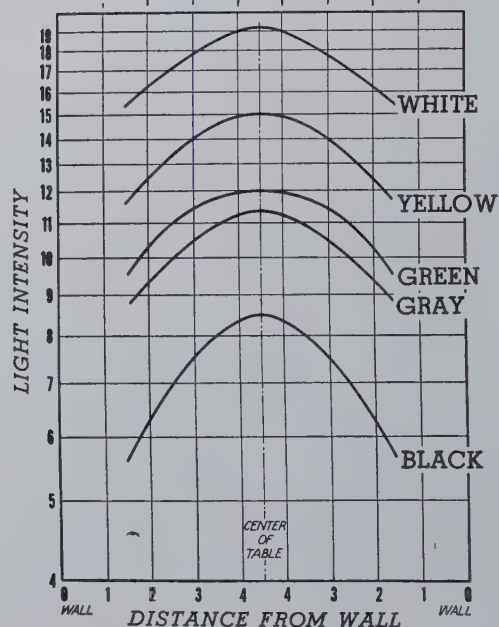
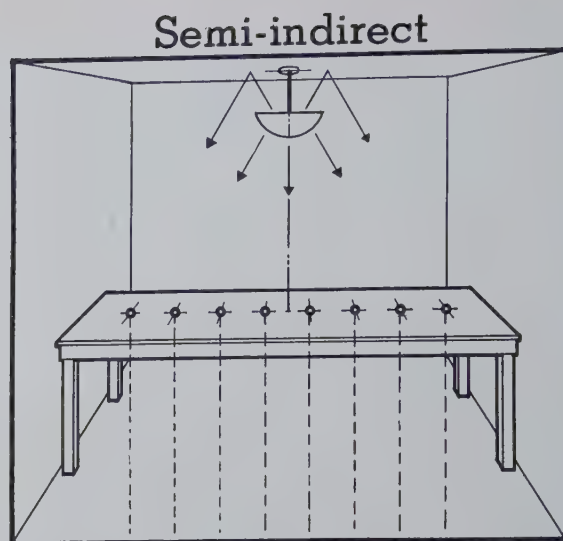
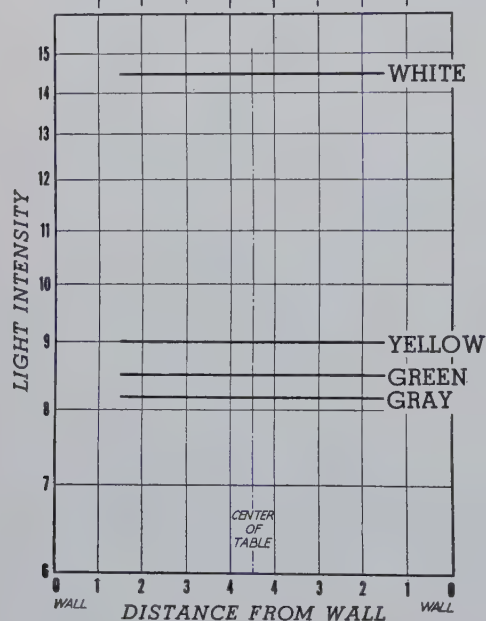
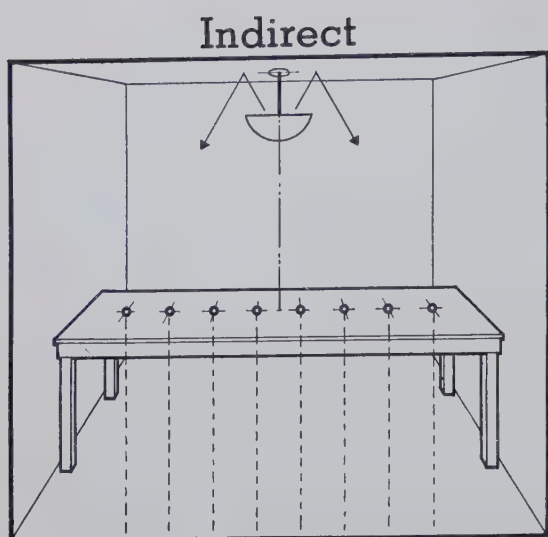


FIGURE 1

toward the wall (at a distance of, say, 24 inches from it) so the eye of the meter is exposed to the light *reflected* from the wall and make a meter reading; then turn the eye about so it is exposed to *direct* light, again noting the meter reading. The ratio of the wall reading over the direct light reading is your reflection factor. It is a workable figure for use in selecting colors for walls, ceilings, and floors. All readings for comparison should be made at the same distance from the reflecting surface.

All surfaces absorb some of the light that strikes them. Consequently, the architect will take this factor into consideration when selecting a surfacing material. A black surface absorbs practically all the light that strikes it while a white surface absorbs practically none. An ideal white

would reflect 100% of all the light that is directed upon it. Magnesium oxide, reflecting about 98%, generally is used as a *standard white* by scientific investigators. As this condition is not obtainable in common practice, maximum efficiency must be tempered with a consideration of commercial availability.

The charts in *Figures 1 and 2* are indicative of the wide variation resulting from the use of different colors in reflecting surfaces of a room. It must be noted that these charts are to indicate the principle involved rather than to serve as quantitative guides for design. The colors selected for test are those having an adaptability to business and industrial use under various types of illumination. Basis for the diagrams is a series of tests conducted by the New Jersey

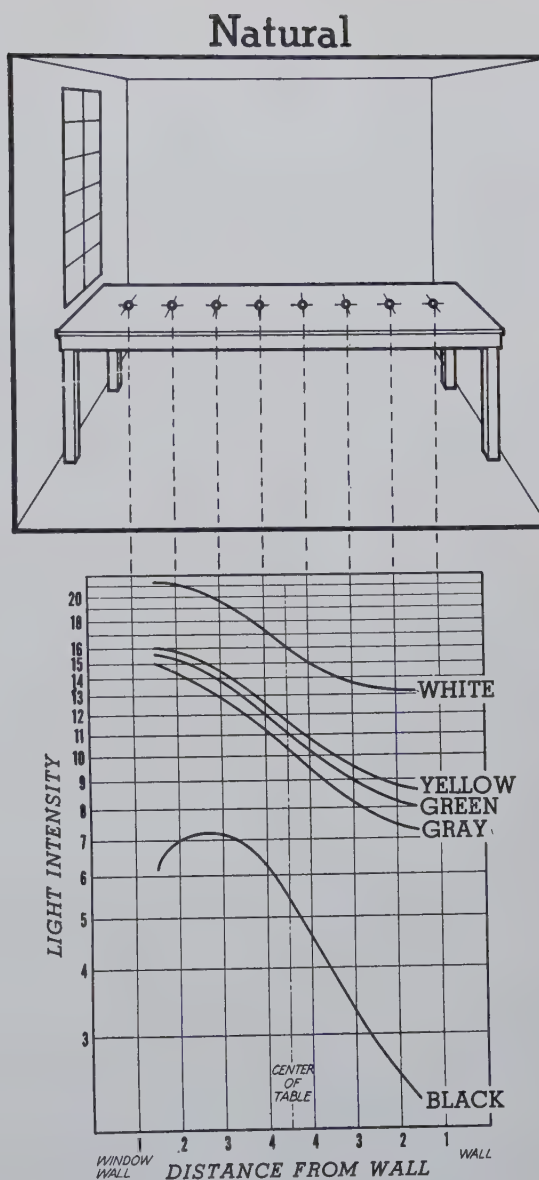
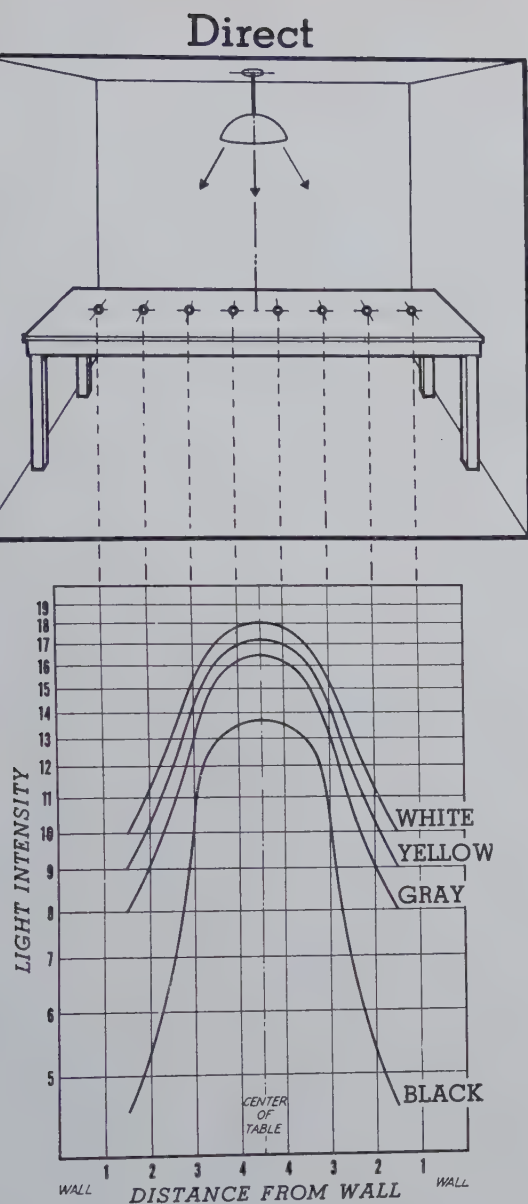


FIGURE 2

Zinc Company technologists, contained in a 16-page booklet titled *Using Paint As Light*.

The eye has to contend with few white objects in nature. Snow is an exception which, as we know, can be extremely trying to the eyes. A large white surface within the field of vision is likely to contribute little to eye comfort. The ideal quality of nature's illumination is provided largely by the beauty that is found in nature itself. The field of vision that meets the eyes outdoors contains the cool blues and greens of the sky and foliage and the warmer yellows and reds of field and rock surfaces.

To reproduce this good quality of illumination indoors it is necessary to provide the field of vision with certain areas of color. Introducing pigments to surfaces to produce color will neces-

sarily cut down the over-all efficiency of the illumination system. This fact may be used to advantage in an effort to correct the excess red, orange, and yellow in incandescent lamps of the Mazda type. By adding a small amount of blue pigment in the ceiling surface, some of the red, orange, and yellow is absorbed and a color quality of light approximating daylight is produced in the room. However, this expedient results in a lower intensity, because part of the light in the lamps has been absorbed by the blue pigment in the ceiling surface and does not reach the working level. To obtain comfort and quality in illumination it is sometimes necessary to sacrifice efficiency by introducing color into the surfaces within the field of vision. This loss can be overcome by increasing the light intensity. The final

decorative mood created in a room is a partnership of the color content of the light source, the intensity, diffusion, and direction of the light, and the pigmentation of the room surfaces.

Usually the ceiling surface is well above the field of vision so it should be as white and as mat as possible. In a totally indirect lighting system all the light is sent to the ceiling where it is diffused and distributed throughout the room. Then the reflection factor in the ceiling should be extremely high in order to maintain a maximum utilization of the light produced at the fixtures. Walls should be tinted to provide a restful quality of illumination to result in seeing with comfort.

In the case of a direct or recessed lighting fixture, a greater proportion of the light is sent directly toward the working surface. The ceiling, however, should be nearly white in order to relieve the contrast between the brightness of the fixture and the background against which it will be seen. Approaching auto headlights which are dangerously glaring at night are insignificant when turned on during the day. By using white surfaces on the ceiling the same effect is obtained since the brightness of the lighting fixture will lose itself or blend with the ceiling which is lighted by the upward component of light produced from the light source.

When daylight-type fluorescent lamps are used for general illumination, it is often found that the atmosphere they create is psychologically cold because of their deficiency in the red color range. In most cases daylight lamps are selected because of certain necessary color discrimination in the room. In these cases the warmer white lamps are not suitable because of the different color quality they introduce. However, the "cold" atmosphere can be relieved through the application of wall surfaces which contain small quantities of warm colors such as pinks and russets. These colors absorb some of the excess blues and greens found in the daylight-type lamp and result in a psychological effect which is extremely comfortable.

The color of the walls in a small room are more important to the illumination system than the walls in a large room. In the small room the walls intercept a larger percentage of the total light produced. Colors selected for wall surfaces in a smaller room, therefore, must be of lighter

shades to take advantage of their higher reflection factors—especially if an indirect lighting system is used.

Knowing the dimensions of a room, the lighting scheme to be used, and the type of surfaces to be employed, it is possible to calculate what the intensity in the room will be. After a few months of use it may be discovered that the intensity has fallen as much as 50% from its initial values. Part of this can be due to decreased efficiency of the electric source itself, but lighting laboratories have developed light sources today which maintain a fairly steady light output throughout their estimated life.

Often the reason for falling off in intensity can be traced to dust or dirt in the fixture. With regular maintenance, however, it is found that in many interiors a gradual decrease in intensity takes place, resulting from change in the character of the room surfaces. Many white surfaces darken and most colored surfaces alter their hues when exposed to light. Even when not exposed to radiation of any kind, most surfaces will fade with age. To obtain an illumination system that will provide an even intensity of light over a long period of time, it is desirable to have surfaces which will closely maintain the initial reflection factor as well as the color. In planning a lighting system it is better to have a surface with an initial reflection factor of 75% which will not decrease with exposure and age than a surface having a reflection factor initially of 80% but dropping to 70% upon several months' use.

No guesswork is necessary in choosing surfaces. The development of Fade-O-Meter testing makes it possible to determine in a few hours what the surface conditions will be after several years of usage under exposures usually found in an interior. A sample of the material to be tested is placed in the Fade-O-Meter with part of its surface protected from the accelerated atmospheric and light conditions produced in the chamber. At the end of the test the sample will contain an exposed area and an unexposed area which indicate the changes which will take place in both the reflection factor and the color of the surface during actual use. The results are available to all who require them.

The meter does not, of course, in an accelerated test of this kind, indicate the effect of accumu-

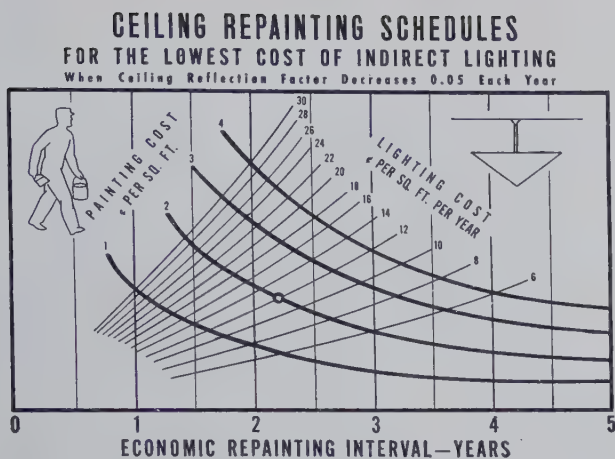


FIGURE 3

lated dirt which would adhere to a surface in actual use, at a rate depending on the severity of air contamination. *Figure 3* is an ingenious cost calculator to show how often ceilings of offices and institutional buildings should be repainted to secure maximum lighting efficiency at lowest cost. This chart was developed by the General Electric Company, and takes into account the economical balance between the cost of light absorbed by *dirty and darkened* ceilings and the cost of maintenance. Knowing the cost of repainting per square foot and the yearly cost of light per square foot, the intersection of the lines representing these values should be dropped vertically to the time scale across the bottom to get the economical repainting period where indirect lighting is employed for illumination. For instance, the chart shows that a ceiling should be repainted in about $2\frac{1}{4}$ years if the lighting cost is 12¢ per square foot per year and the painting cost is 2¢ per square foot. *It must be noted that the chart is based on an average accumulation of dirt and darkening from age, with a ceiling of usual materials. If the dirt accumulation is lessened by means of air conditioning or if the darkening is retarded by the employment of more permanent surfaces, the chart will not apply.* It is reproduced here as an illustration of the principle involved rather than as a quantitative basis for design calculations. The predetermination of change in the light reflecting characteristics of a surface *due to color change* that is made possible by the Fade-O-Meter testing has brought about some interesting product developments. Among these has been the creation of a white, sound-insulating, wall board which has a high initial light reflec-

tion factor and actually grows lighter, increasing the reflection factor with exposure. *Figure 4* shows a test sample being examined as it is taken from the Fade-O-Meter. The circular center area of the sample has been exposed. Note how the surface lightened and increased the reflection factor.

JAMES J. OBERHAUSEN

* * * *

Millions are spent yearly on colors to brighten our generally drab surroundings. It is inevitable that color-lighting finds innumerable architectural applications. Let us consider color-lighting from the standpoint of the architect.

Color is psychological in effect as well as physical. It can influence the state of mind. It can create illusions of line, mass, or contour. Color, either as a pigment or as light, can do much to disguise a poorly designed exterior or interior by softening unpleasant lines or by relieving ponderous masses. But principally, color-lighting can be used to enhance the beauty of exterior architectural features and to emphasize interesting interiors. The recent Fairs were splendid demonstrations of effective color-lighting.

It is immaterial whether the source is sunlight or man-made light such as incandescent, mercury-vapor, fluorescent, or any other which in-

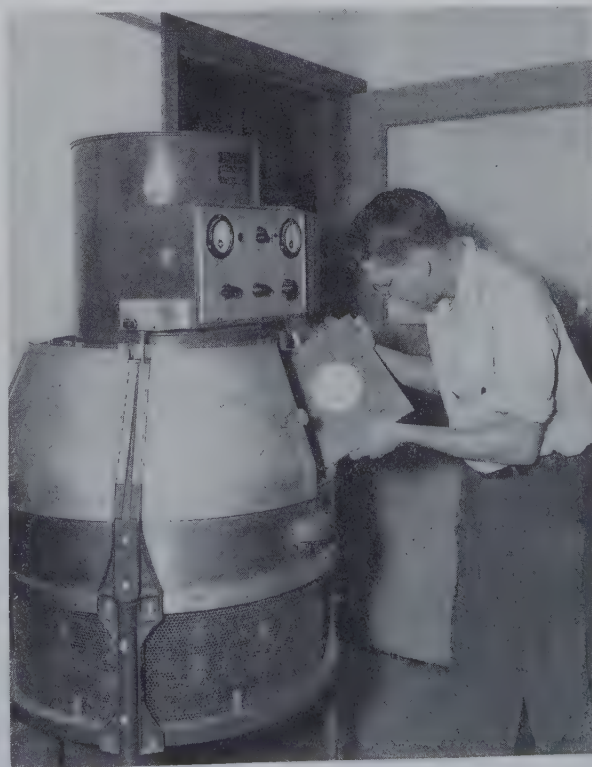


FIGURE 4

volves the visible spectrum. Each is a phase of colored light.

To treat color-lighting as an afterthought in architectural or decorative practice is to ignore fundamental color laws in nature. Color-lighting must be an integral part of design, with all the physiological and psychological effects considered painstakingly beforehand. In general, properly color-corrected lighting heightens visual acuity, maintains personnel efficiency, stimulates conversation, amusement, and entertainment. Color-lighting intensifies the effect of striking features, and specific points of interest are easily brought to the attention of a public whose favorable reaction is sought.

In approaching a problem of color-lighting it may simplify procedure, as well as assure the covering of all details, to divide lighting into five sections:

- (a) Intensity of the light
- (b) Diffusion of the light
- (c) Direction of light
- (d) Color content of light
- (e) Character of surfaces to be lighted

Following such an outline will secure the best possible combination of *quantity* and *quality* of illumination for either exteriors or interiors.

Let us take as an example the lighting of a small department store or a specialty shop.

Intensity of light will be based upon the need for customers to examine the texture, size, shape and quality of the merchandise.

Diffusion control will mean that glare cannot disturb the customer's appraisals or become a psychological handicap to a reasonably fast arrival at a decision.

Direction of light aids in the examination of details of merchandise and also controls glare.

Color content of the light, when properly corrected, means that the goods may be seen under light conditions similar to those under which they are to be worn or used.

Combined, these four factors can be made the means of materially reducing the return-goods nuisance for the retail merchant.

In offices, factories, and homes, these factors can be applied to working out satisfactory results.

Color may be thought of as a synthetic science. It is one in which physics, chemistry, physiology, psychology, and philosophy are closely knit together. We may see this graphically.

The primaries of pigment colors are not simply blue, red, and yellow—but more exactly, blue-green, magenta, and yellow. The primaries of light, however, are red, green, and blue-violet. In addition, the psychologist may have his own set of primaries; red, yellow, green, and blue. The very fact that there are three different sets of primary colors makes it important to study color not only in regard to its harmonious co-ordination in pigment form, but also in regard to the psychology or subjective reaction to color and, of course, color in light. So let us illustrate the physical effect of light upon colored surfaces.

Sunlight, contrary to popular belief that it is pure white, is really slightly yellowish. The truth of this is evident in its shadow which has a purplish cast. So if you wish to simulate sunlight take straw or light yellow and for the shadow take violet and a very light red. To suggest moonlight take light blue and steel blue; for sunset, blend red, orange, amber, and violet in proportion; blue-green we associate with mystery so use it for weird effects; green blended with a very pale yellow (straw) results in the luscious green of nature's vegetation; light green with blue is ideal to simulate ice and cold; and light green, blue, and violet used in proportion and staggered is most effective for "sky" lighting. Blacks always look their best when lighted with "cool" colors, i.e. blue-green, blue, violet, and purple.

The color of the shadow in the presence of "white" light is complementary to that of the light source. For instance, if you throw a red light upon an object from one side and have a "white" light on the other or shadow side, the shadow will then be green. The resultant color from a light source with a red and green filter will be yellow; from a red and blue filter it will be purple or magenta; from a blue and green filter it will be blue-green or peacock. A given color plus white light results in a tint of that color and the three primaries of light superimposed create a synthetic white light.

The suggestions tabulated herewith are intended as "keys" only. They are given to start one off on his own experiments and need not be adhered to religiously. Develop your own technique. Extreme flexibility in the use of the suggestions is allowed. After all, to give versatility

to color application, there are more than two million perceptible colors!

Great care must be displayed in color-lighting interiors where people and food are present. Just imagine what would happen to an appetite if you were served a green steak, blue milk, and brown salad! Or, worse yet, the mental effect it

Here is an excellent example of the power of color. The motion picture producers spend thousands of dollars for colors in their sets for pictures which are to be shown only in black and white. The reason for this seemingly unnecessary expenditure lies in the psychology of colors—the actors perform more unaffectedly and

<i>Materials</i>	<i>Mainlights</i>	<i>Auxiliary Lights</i>
Tan, Brown, and Red Leather	Frost, Straw, dark Amber	Frost for gray canvas
Yellow	Frost, Amber, light Red	Magenta for red leather
Orange	Frost, Amber, Red	Green and steel Blue for greenish accentuations, night and weird effects
Red	Straw, Amber, medium Red	Blue-Green for dark green tones; Magenta for reddish and exciting effects
Purple and Violet	Violet, Steel Blue, medium Blue	Violet for deep red and Blue for purple hues
Ultra Marine and Navy	Violet	Light Red and medium Red for warm tones
Blue-Green and Yellow-Green	Dark Green, Blue, Violet	Light Red for warm tones (winter)
White	Red, Green, or/and Blue for tinting and dramatic effects	Amber for cool tones (summer)
Gray	Steel Blue, Light Red, and Light Green for tinting and for warm or cool appearance	Straw to soften
Black	Red for warm tones, Blue for cool tones	Amber for light yellow-green and watery effects with Orange fairly dark shades
		Frost to soften

would have upon women whose meticulous make-up may be ruined by careless lighting.

These are obvious instances of the psychological phases of colors. Knowledge about this physio-psychic relationship has been accumulating for many years. Hospitals have found that patients prefer light greens in wards and private rooms. Laboratories have discovered that many shades of blues act as sedatives, and darker blues as soporifics. Asylums proved that reds may have a quieting effect upon some mental cases but the reverse on others or on normal people.

Only during the last decade has real advance been made in the physio-psychological classification of colors. Now we can select a certain blue or green with the fore-knowledge that it will make a room more "comfortable" for living or working. We can avoid tans, saffrons, and yellow combinations in airplane decoration and in other transportation units, and thus tend to overcome "travel sickness."

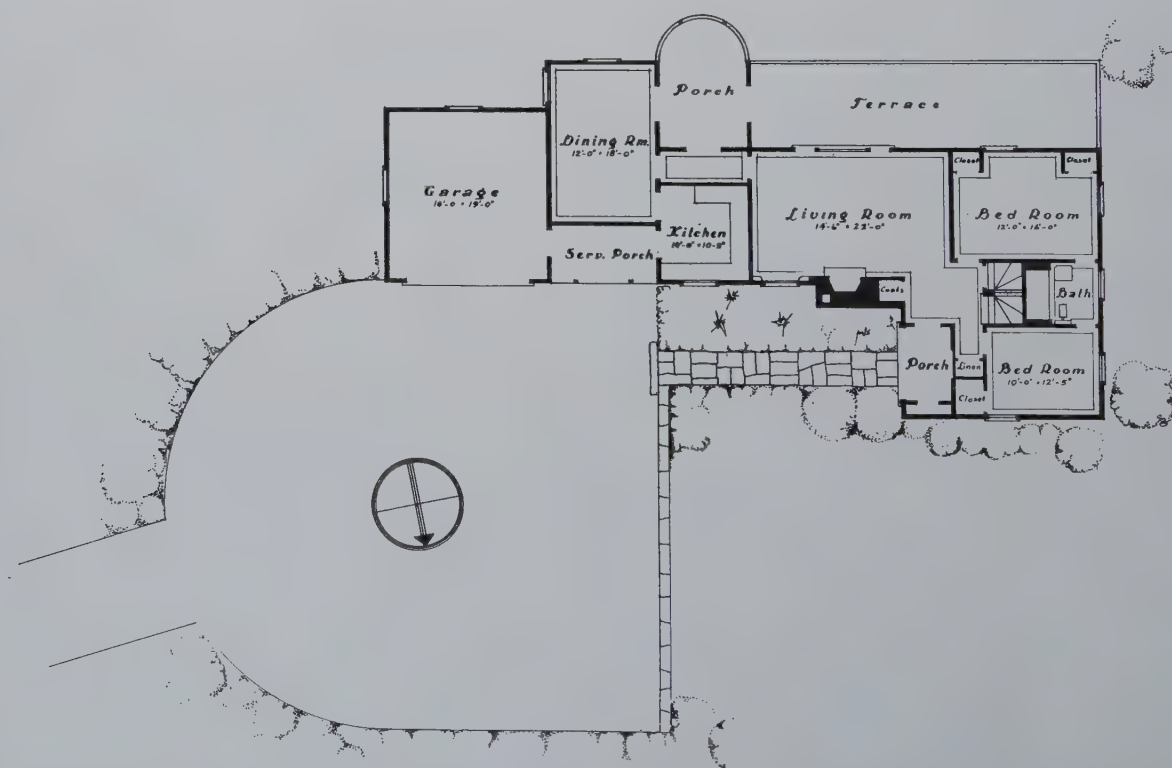
with greater ease with natural colors in the set. Now, if the mere application of pigment colors has such remarkable, dramatic, and psychological effects upon human beings that are masters of their surroundings, isn't it logical to believe that the effect of color everywhere is important?

In the future the application of the psychology of colors will be universal. Whole cities will be known by their respective colors of lighting, thus indicating their identity to airplanes in flight and informing the air-travelers instantly of the position of the ship. Within the cities—streets, avenues and public buildings will assume their specific hues and tints of lighting to facilitate recognition and orientation. We will come to live according to personal color charts for dress, home, and business, while motorists will be guided by color-lighted roads.

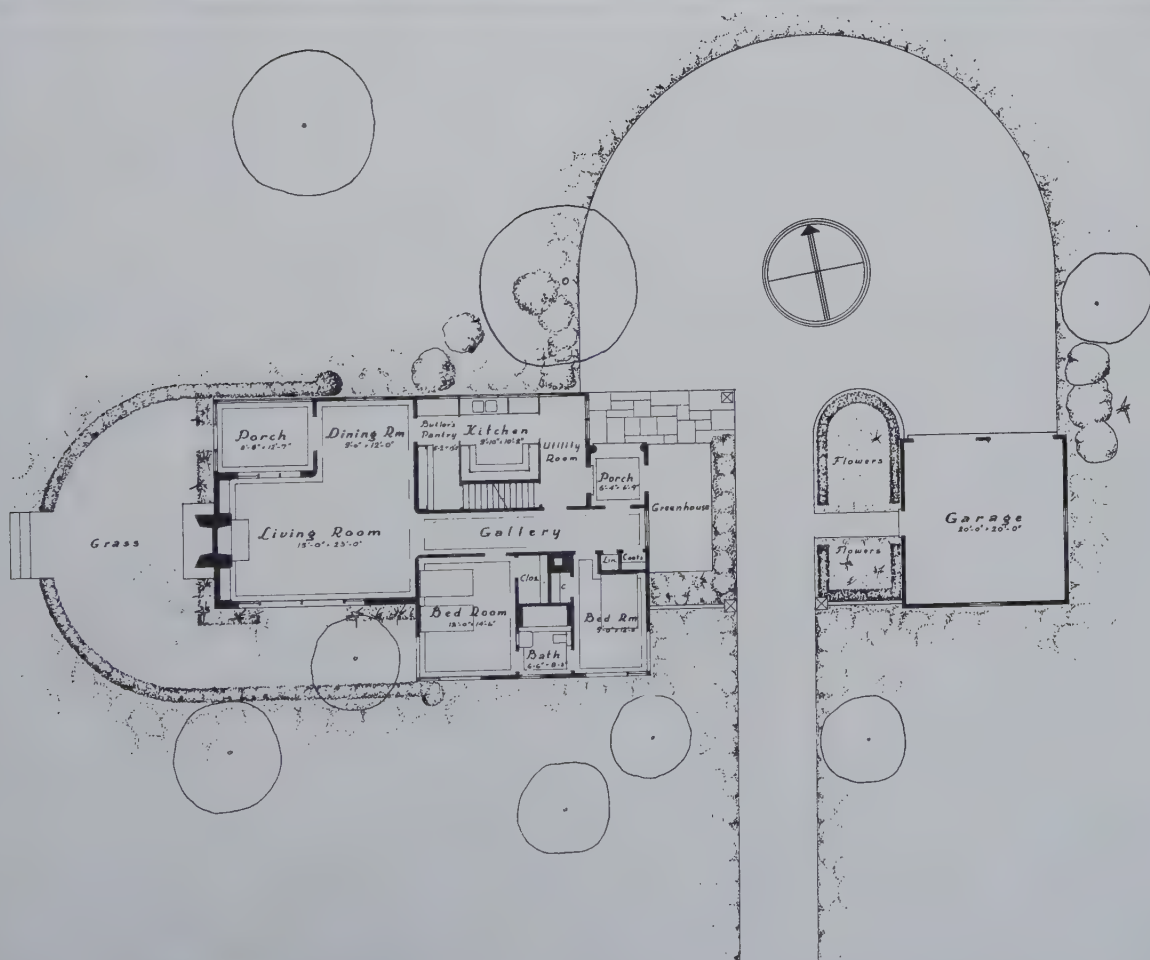
There is an exciting future in the close collaboration of the triumvirate—architect, illuminating engineer, and color expert. H. H. SCHEID



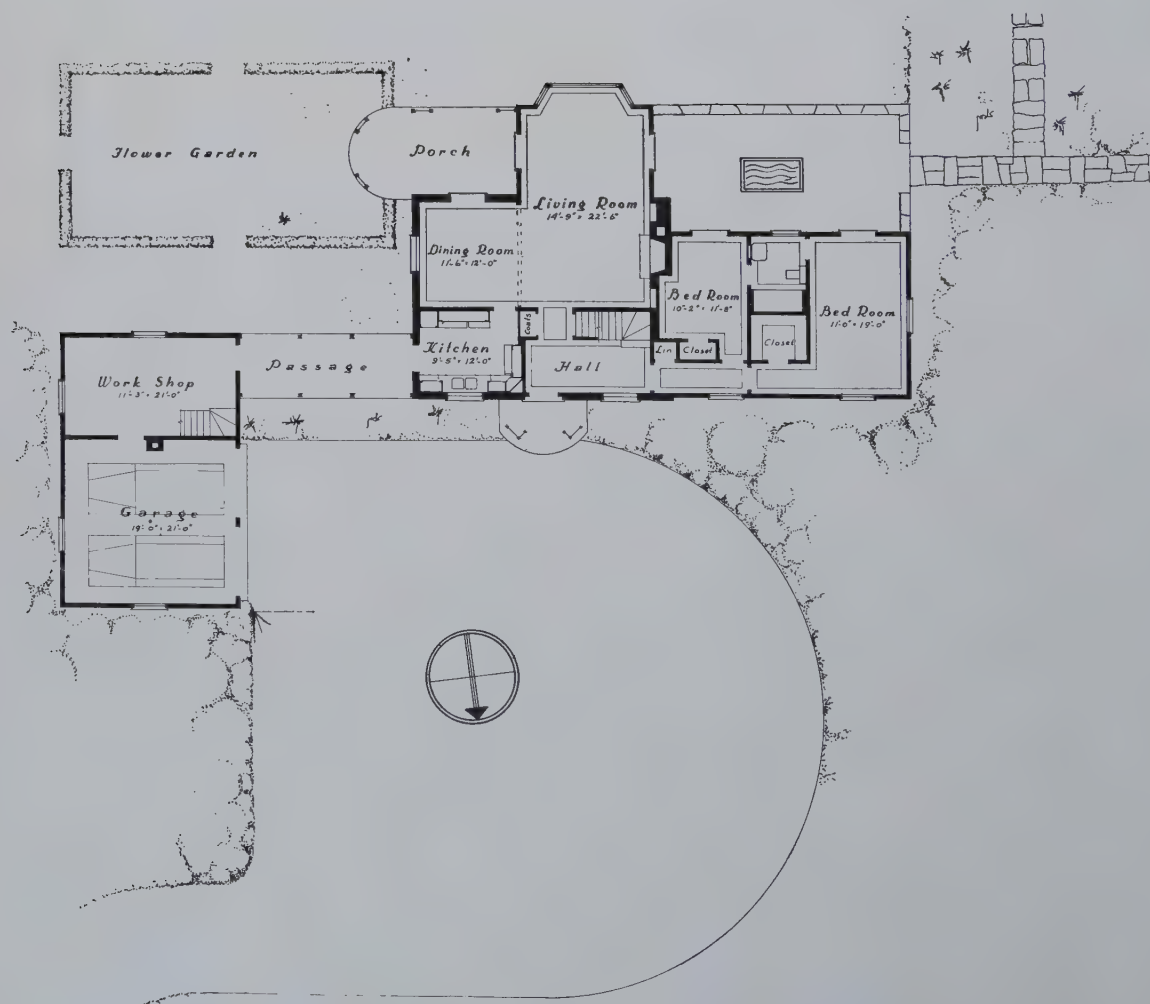
THE SMALL HOUSES SHOWN HERE ARE LOCATED NEAR CHICAGO. THE ARCHITECT USED BEVEL SIDING, HARBOR WATERPROOF PLYWOOD, LANNON STONE PAINTED WHITE, AND SHINGLED ROOFS. THE COST AVERAGED 40c A CUBIC FOOT



SMALL HOUSE — BY FREDERICK HODGDON, ARCHITECT, OF CHICAGO

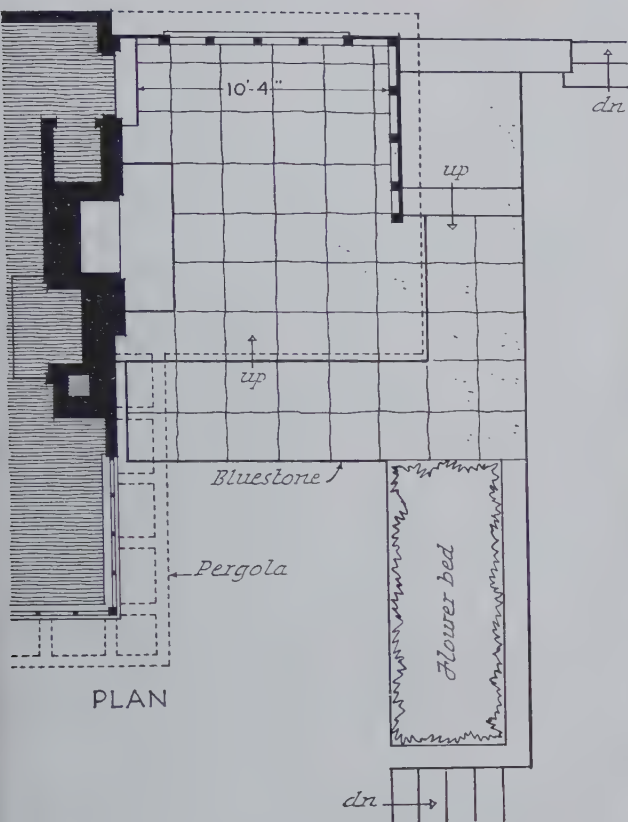


SMALL HOUSE — BY FREDERICK HODGDON, ARCHITECT, OF CHICAGO

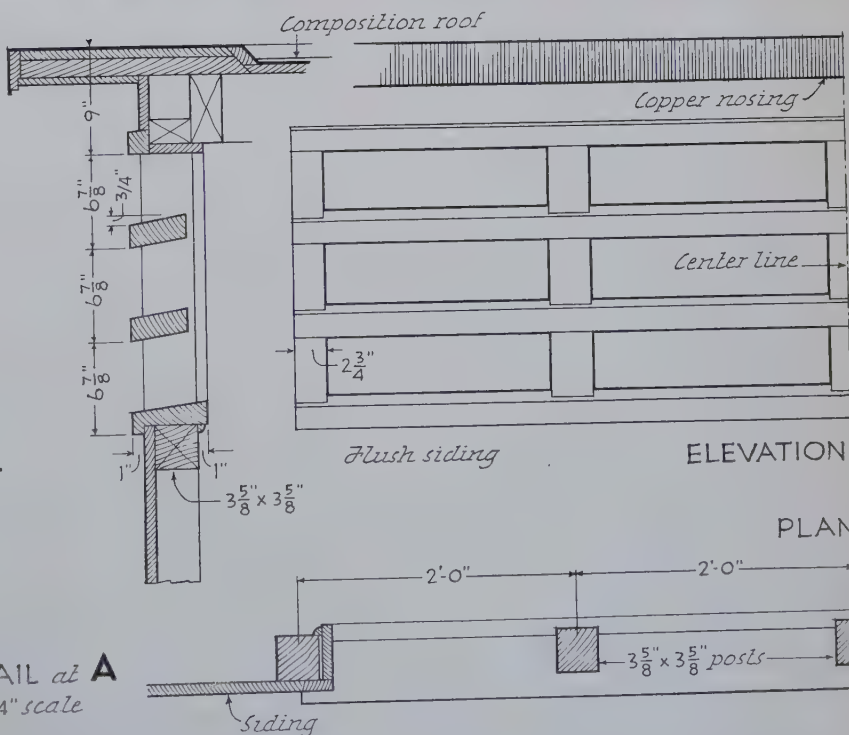
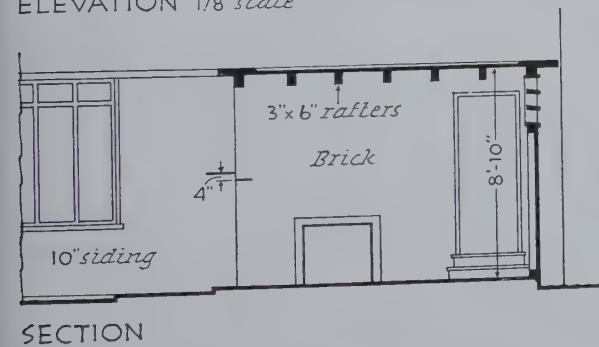
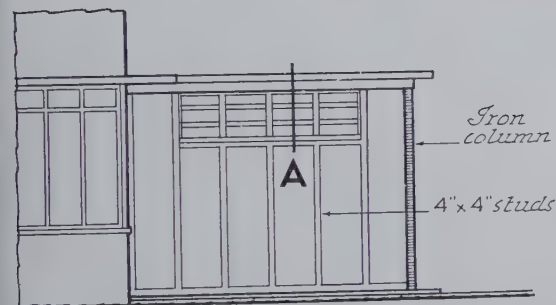


SMALL HOUSE — BY FREDERICK HODGDON, ARCHITECT, OF CHICAGO

L I V I N G P O R C H



GEORGE H. VAN ANDA



3

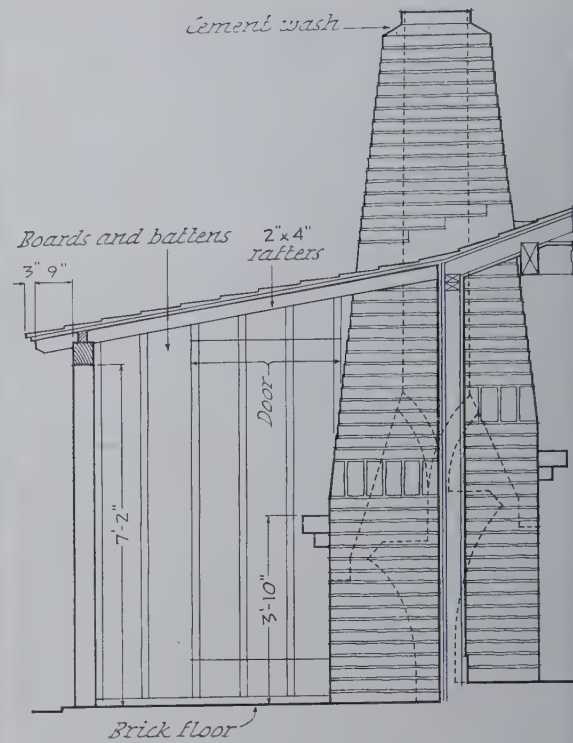
WILLIS N. MILLS

Architect

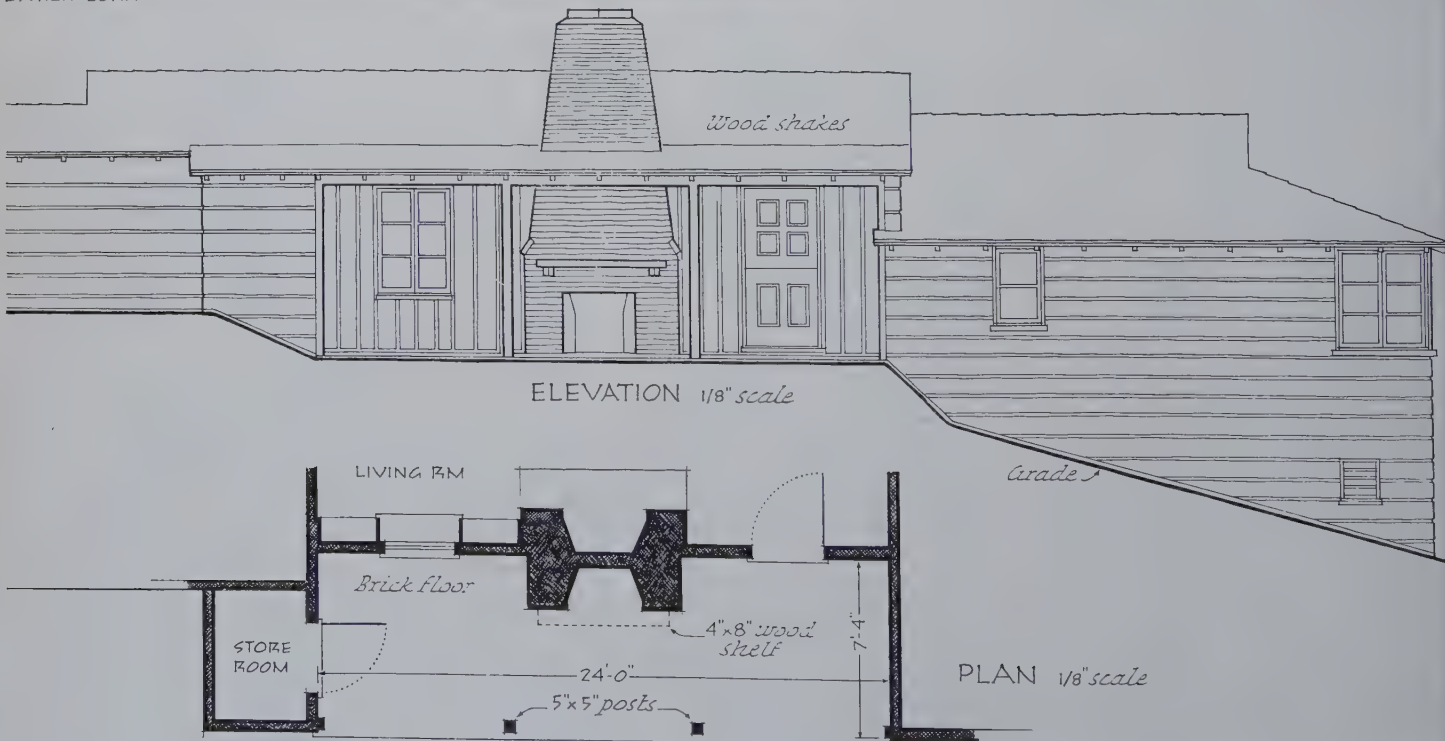
L I V I N G P O R C H



ESTHER BORN



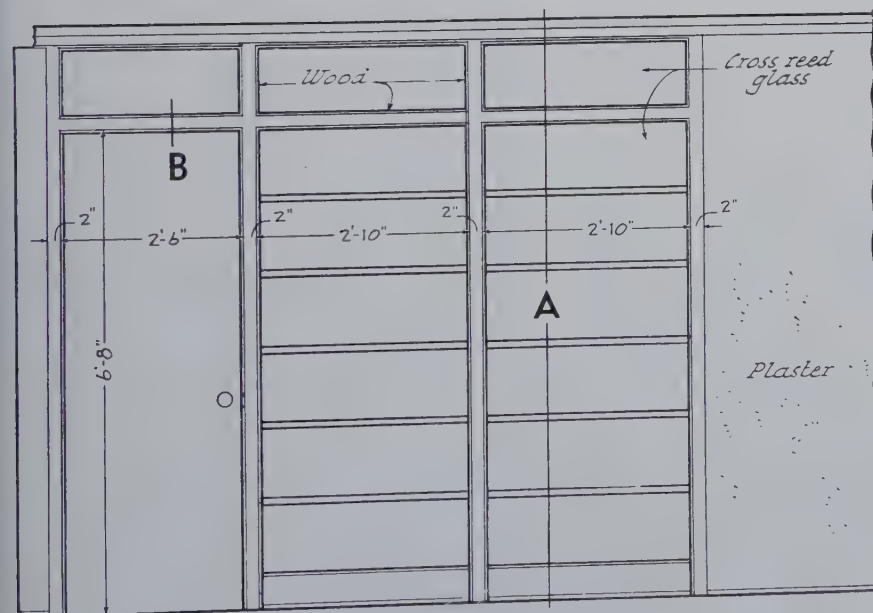
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1/4" scale



WILLIAM CLEMENT AMBROSE Architect

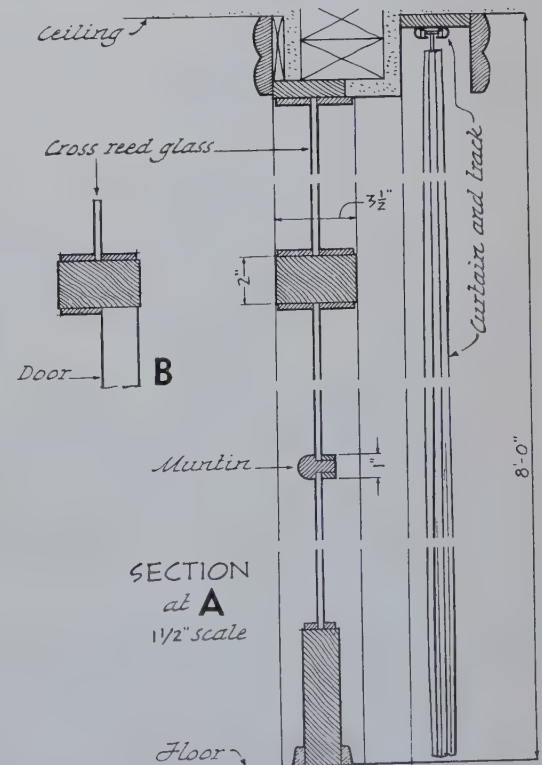


RICHARD GARRISON



ELEVATION

3/8" scale



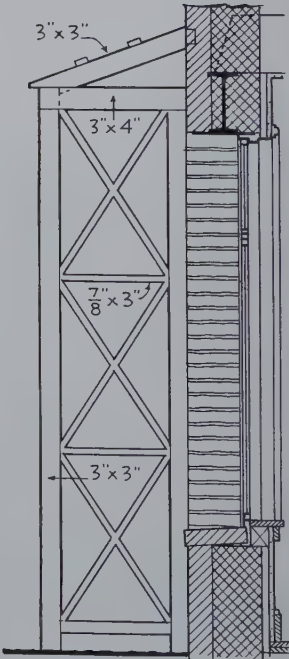
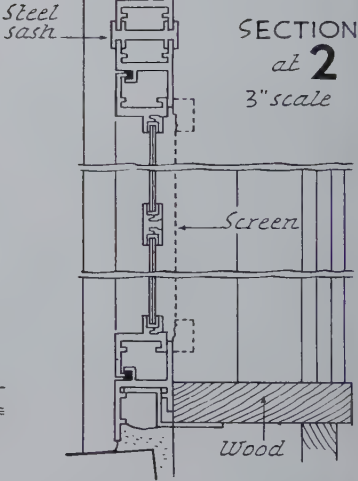
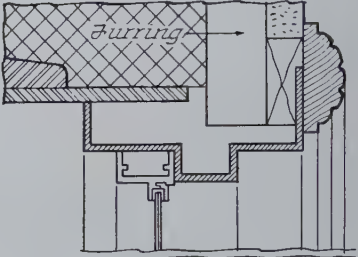
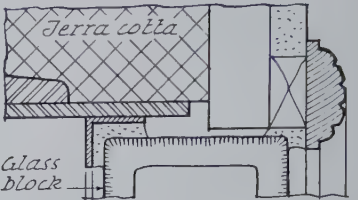
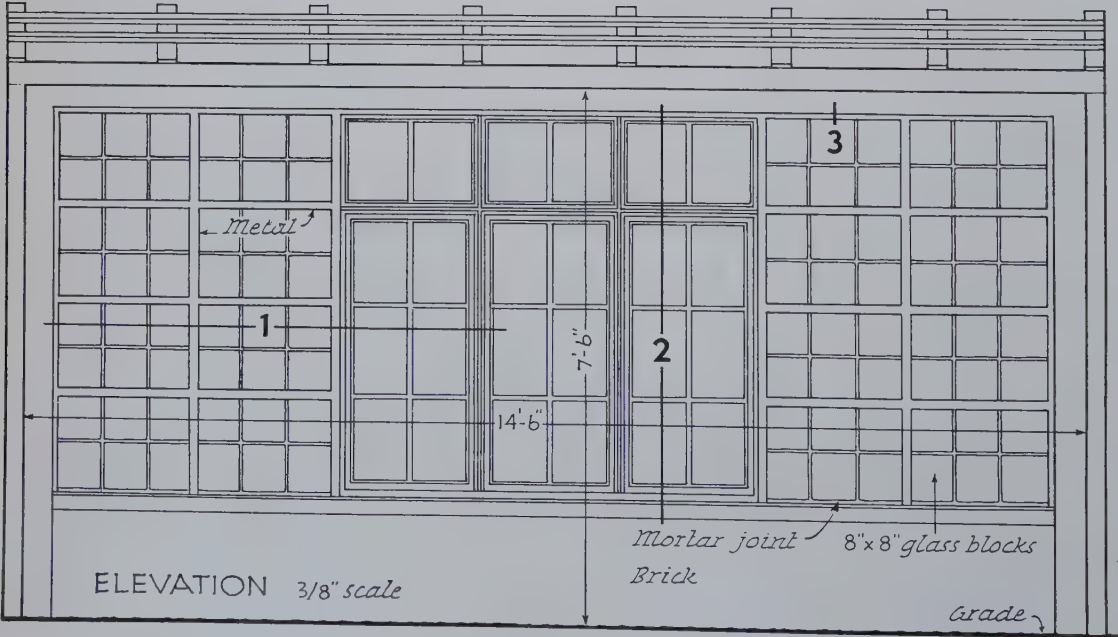
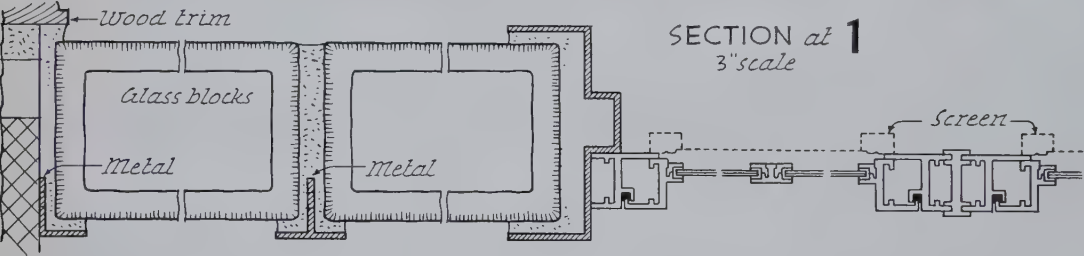
SECTION
at A
1 1/2" scale

PAUL THIRY Architect

U S E S O F G L A S S

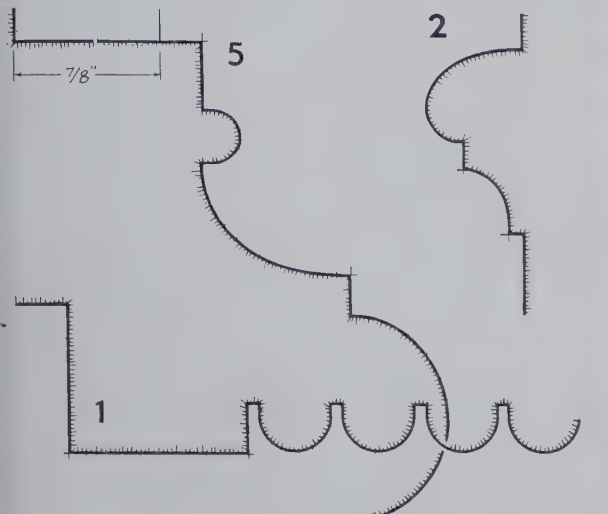


WILLIAM T. HOFF

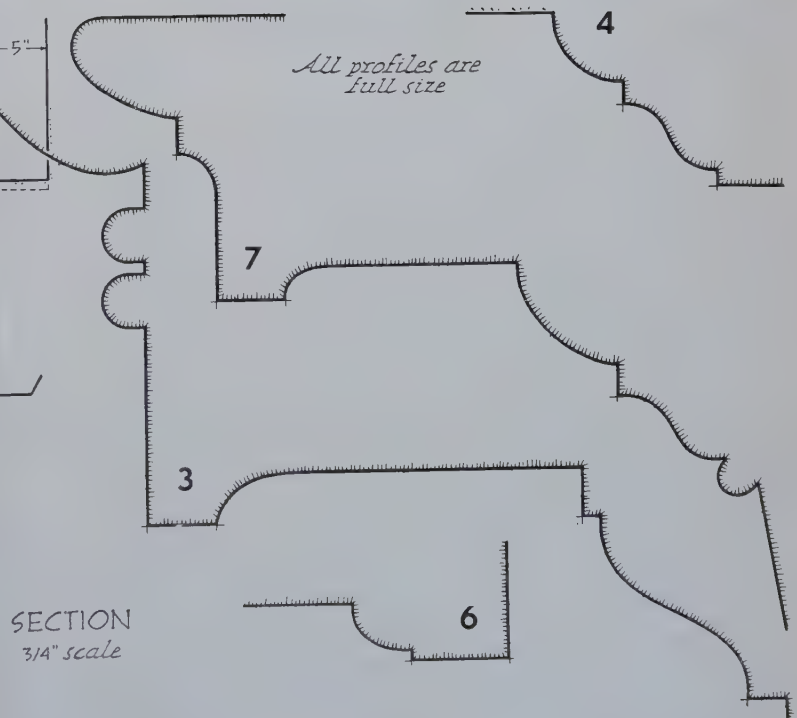
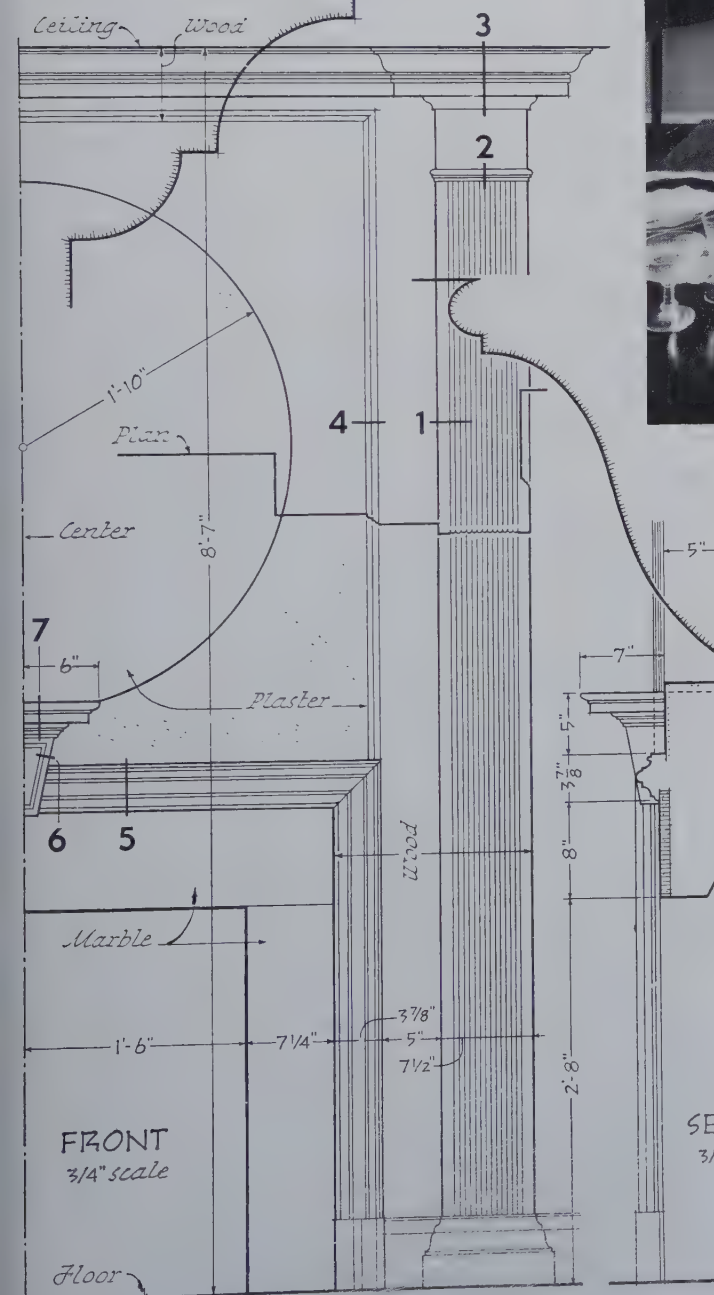


PERRY M. DUNCAN Architect

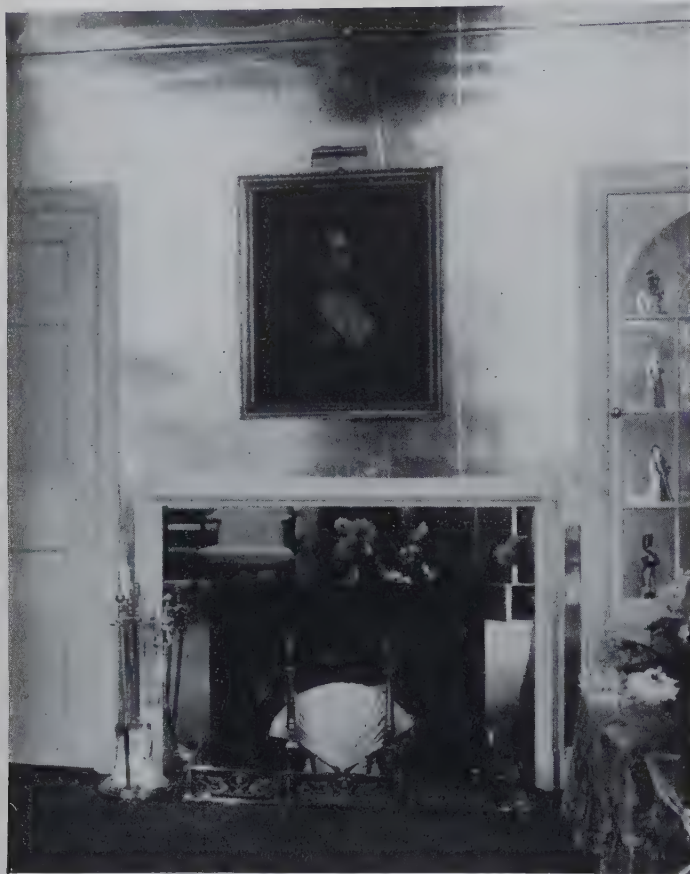
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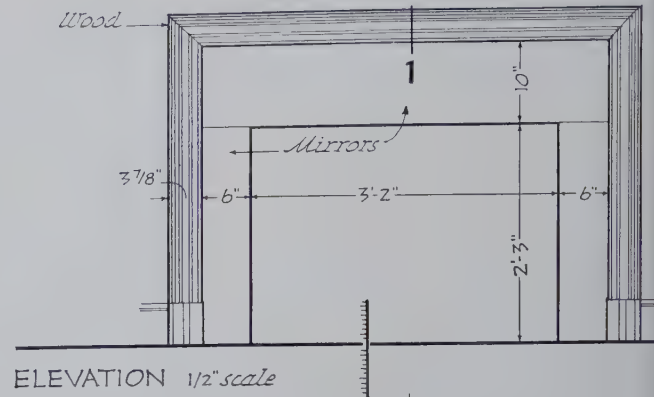
RICHARD GARRISON



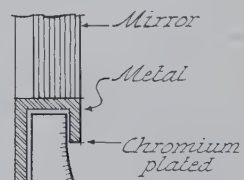
GEORGE S. STEELE Architect



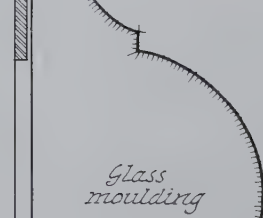
RICHARD GARRISON



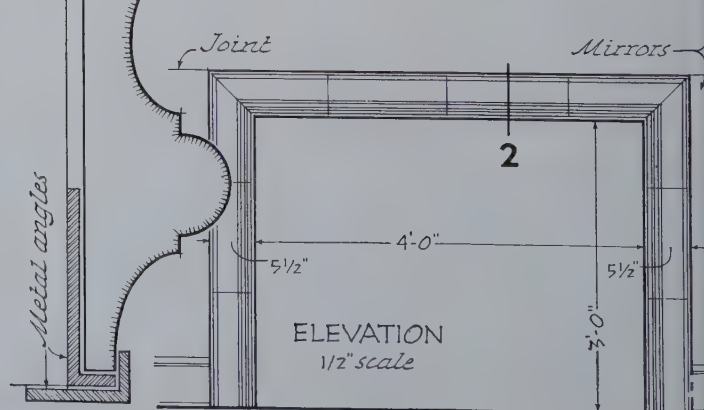
SECTION at 2 Full size



SECTION at 1 Full size



RODNEY MCCAY MORGAN



GEORGE S. STEELE Architect

CLOSING AN ACTIVE SCHOOL

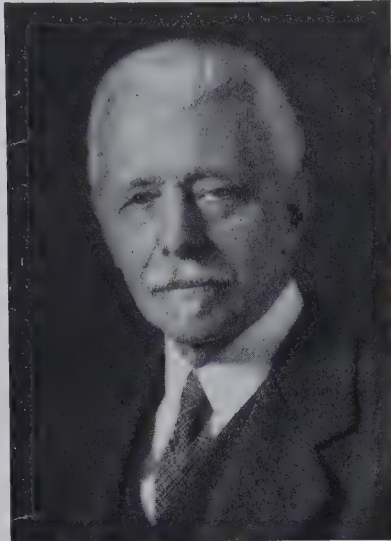
A STATEMENT BY DEAN E. RAYMOND BOSSANGE

The financial condition of New York University at present necessitates economies and, notwithstanding our record, the Council has voted with much regret to discontinue the School of Architecture and Allied Arts on July 1, 1941, because it is not self-supporting. This year, the tuition fees received would have exceeded the cost of administration, instruction, and the clerical staff; not a bad showing when the high cost of our individual criticisms in technical art courses is considered! But our deficit, based on September registration figures, would have been about \$30,000. It should be explained that \$40,000 of our expenses was accounted for by the necessity of meeting our own rent off the campus, by janitor service, and our light bills, and by assuming a share of the general university overhead. Although some of the other schools of New York University produced larger deficits, the Council decided to close this school to curtail expenses.

This brings up the question of the relative importance of the various professions and the contribution of architecture to the community. It is admitted that in the future there will be fewer architects in independent practice than in the past. Undoubtedly, vast projects of inevitable post war planning, Government, commercial organizations, and the Public Utilities will need a greater number of architecturally trained men than ever before but they may not be *called* architects. The Architect's training makes him invaluable in the community. He is taught to *plan*; that is the very basis of his training. Can anyone deny we will need more men who can *plan* in the future than ever in the past? Our communities, our policies, our economics must be *planned*. Considerations and requirements of all kinds must be correlated and—coordinated. *That is the Architect's field.*

But the Architect can contribute even more. His imagination can understand and fore-

see needs; not merely physical needs but Man's æsthetic and spiritual longings. The Architect's training in the Humanities, his knowledge or great



aspirations and ideals, as revealed by the masterpieces of the past and present, will enable him to idealize our needs in terms of human beings, not of mere machines. The Architect is an artist and the world is not complete without art. Physical functionalism is not enough. Man's longing for sympathetic, happiness-giving, elevating backgrounds for his daily life must be gratified. *That is the Architect's job.*

In September, 1926, the writer, then Director of the School of Architecture at Princeton University, was called to found a department of Architecture at New York University. Columbia University's School of Architecture was active and it would have been unwise to attempt to start a competing school. Ample provision existed here and elsewhere for the man who could afford five or six years at college. On the other hand, numerous draftsmen in offices, men of talent and ambition who aspired to be architects, had little opportunity to prepare for careers or for license examinations.

An evening program therefore was offered, made up of appropriate courses in various departments of the University to which were added new courses as the need developed. Starting with 33 students, the department grew rapidly and for the last years has

served an average of 500 students. When, a few years later, this State changed the requirements for the Architect's license, making it practically necessary to be the graduate of an accredited School of Architecture, a complete program was gradually organized with both day and night courses.

The excellence of the work done by students who spent half or more of their time in offices, and thus combined theory and practical experience, convinced the writer that this program was educationally sound. The school therefore has always encouraged students to take their courses on a part-time basis, in the day or evening according to circumstances and studying on full time when unemployed. An exceptionally elastic schedule made this possible and no time limit was fixed for graduation. In other words, we organized the school on the European University System and the degree was awarded when requirements were fulfilled.

The faculty likewise was appointed on a part-time basis and all its members were in active practice — architects, engineers, and artists. Such instructors had much authority in their courses. Our enthusiastic students, struggling to solve modern problems, felt in harmony with their professional advisors who were themselves struggling with the same problems in practice. Our active faculty, supplemented by over 150 specialists; the location of the school near offices, studios, and great modern buildings; numerous visits to exhibitions, shops, and field trips to plants and manufactories — all contributed to make our teaching real and modern.

The combination of work in Architecture and Construction, Interior Design, Industrial Design and Mural Painting under one roof, gave our students the great advantage of seeing work in allied fields. In the Freshman Year all the students took the same courses. Specialization was purposely postponed. Thus the student had opportunity to choose his field wisely. He received some instruction in other optional studies which greatly broadened his point of view and gave him technical versatility, enabling him to transfer to allied fields if circumstances made that necessary.

Some of our courses, new or departing from the conventional type, resulted from most conscientious study over a period of years. I refer for instance to Elements of Free Design, planned to stimulate the imagination, encourage originality, and break down inhibitions. It has had a wonderful influence on all our Freshmen. Our courses on the æsthetic character of materials, closely related to design, proved inspiring and popular. In architectural design our Structural Studies made our students conscious of construction and its influence on design, making the results more significant and organic. In history by means of numerous simple sketches (many from memory) we obliged students to observe and analyze compositions, plans, character, and proportion and thus gave them a better appreciation of what they studied.

That our teaching was effective seems to be proved by the numerous prizes won by our students in the Beaux Arts competitions, 325 high awards of which 169 were medals. The *Paris Prize*, the *Diplome Prize*, the *Illumination Engineers Prize*, and the *Emerson Prize* were each won three times and the *LeBrun*, *Rome*, *Rodgers*, and *Howe* prizes were each won once. In competitions for cash prizes, our students have won a total of \$31,200. More important than school prizes is the record of our graduates. About one-third are now Registered Architects and about a quarter are in independent practice. Of our 300 graduates none, as far as we know, are now unemployed.

We did not however limit ourselves to serving our matriculated students. We offered special courses (48 in the last years) for the profession and the public. Courses such as the Promotion of Business Ventures, Air-Conditioning, Real Estate Building Laws and Practice, Recent Mechanical Equipment, Housing and Community Planning, New Building Materials (23 firms participated), Planning the Home, The New Building Code, and a Symposium on Industrial Design to which eleven of the leading designers contributed. These courses were attended by more than 2,000 architects, professional men, and draftsmen.

PENCIL POINTS DATA SHEETS

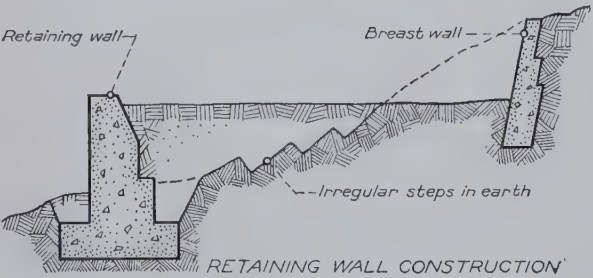
Prepared by DON GRAF, B.S., M.Arch.

PENCIL POINTS DATA SHEETS

BREAST AND
RETAINING WALLS

Index No.
B 4 q
STRUCTURAL

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF



BREAST WALLS. These are erected only to prevent weathering or disruption of earth or other material which is in its undisturbed natural position and which is sufficiently cohesive and stable to support itself unless disturbed. Obviously, breast walls cannot be used to support earth whose angle is greater than the natural angle of repose. The following table gives these values.

Kind of Earth	Angle of Repose	Weight in lbs. per cu. ft.
Sand, clean, dry	33° 41'	90
Sand & Clay	36° 53'	95
Clay, dry	36° 53'	100
Clay, plastic	26° 34'	100
Gravel, clean	36° 53'	100
Gravel & Clay, dry	36° 53'	100
Gravel, Sand & Clay, dry	36° 53'	100
Soil	36° 53'	100
Soft Rotten Rock	36° 53'	110
Hard Rotten Rock	45° 00'	100
Bituminous Cinders	45° 00'	45
Anthracite Ashes	45° 00'	30

Where the ground to be supported is firm and the strata are horizontal, breast walls are usually built more to protect than to sustain the earth. A triffing force skilfully applied to unbroken ground will keep in place a mass of material which, if once allowed to move, would crush a heavy wall. The strength of a breast wall must be increased when the strata to be supported incline down toward the wall.

RETAINING WALLS. (See Data Sheet B4f.) These are constructed so that rotation or overturning due to the pressure of material behind the wall will be prevented. Where the ground freezes to an appreciable depth, the back of the wall should be sloped from below the frost line toward its top surface. This slope should be quite smooth to lessen the hold of the frost and prevent displacement. If the original ground is made irregular with steps and the earth well rammed in layers, the pressure will be less than where the earth is placed in layers sloping toward the earth.

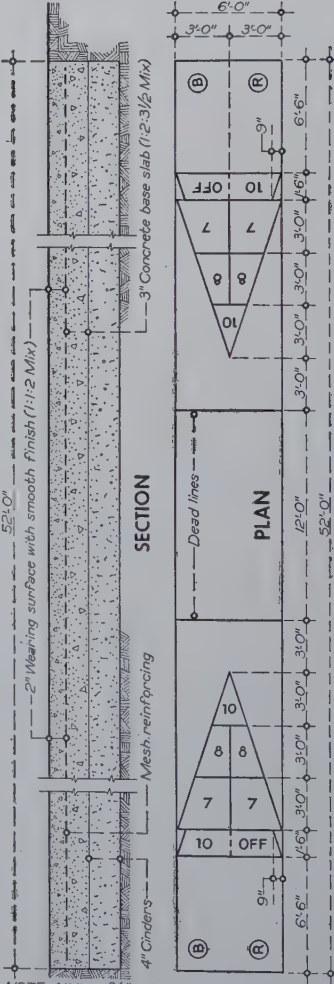
WATERPROOFING. The action of acids or alkalis in the ground water is destructive to concrete and in such locations a standard waterproofing material should be applied. If finished brick parapets occur on top of retaining walls, a dampproof or waterproof course should be laid under them.

From Improvement Handbook, U. S. Department of Agriculture

SHUFFLEBOARD
COURTS

Index No.
D 2 w
PLANNING

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF



BASE COURSE. Well-drained level ground is the best site for a court. The site should be stripped of all sod down to uniformly firm ground and refilled with at least 4" of well tamped cinders. Where the sub-soil is firm sand, the cinder fill may be omitted. The base layer of concrete should be struck off to grade.

WEARING COURSE. Expanded metal or wire mesh weighing not less than 60 pounds per 100 square feet should be put down on the base course. The wearing or playing layer should be mixed and placed within 45 minutes after the base layer is struck off. It should be carefully brought to grade with a straightedge and wood floated. Grinding the surface with a machine shod with free, rapid cutting abrasive stones will give the smoothest and most satisfactory playing surface.

Curing is very important and the surface should be kept continually wet for 7 days. Since no expansion joints are used, careful curing will prevent surface checking or cracks. After curing the court should dry for 4 or 5 days before the playing lines are painted on.

MARKING. All lines are 3/4" wide and the dimensions on the drawing are from center to center of lines. A high quality paint made with an oil or varnish base is satisfactory for use on concrete surfaces. For new construction less than 6 months old, a zinc sulphate wash consisting of 3 pounds of crystals to 1 gallon of water should be applied to the concrete surface to be painted. Allow 48 hours for the zinc sulphate treatment to dry. Remove any crystals that appear on the surface before painting lines.

NOTE: All lines 3/4" wide
Dimensions center to center of lines
No expansion joints

(B) Black } When
(R) Red } playing
doubles

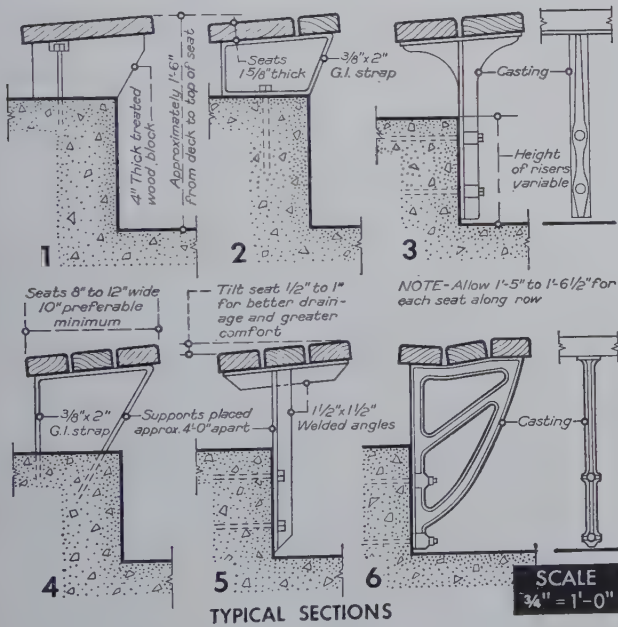
From Portland Cement Association Document No. CP30.

PENCIL POINTS DATA SHEETS

STADIUM SEATING

Index No.
D 2 x
PLANNING

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF



TREADS. The dimensions of treads will have to be an economic compromise between the 2 conflicting factors: (1) Increasing the width of tread increases comfort by providing more leg room, but (2) reduces the sight line clearance. Treads vary from 2'-0" to 2'-6" with 2'-2" as an average.

RISERS. Increasing the riser height increases the total height of the structure and its cost. The number of rows of seats and the assumed sight line clearance produce dimensions of 6" to 1'-6" for risers.

WIDTH ALLOWED PER SPECTATOR. The complete disregard of spectator comfort is nowhere better shown than in the allotment of from 1'-5" to 1'-6 1/2" in width to each spectator. Even the cheapest movie theater usually allows 19" and the better theaters have a substantial proportion of 20", 21" and 22" wide seat spacings.

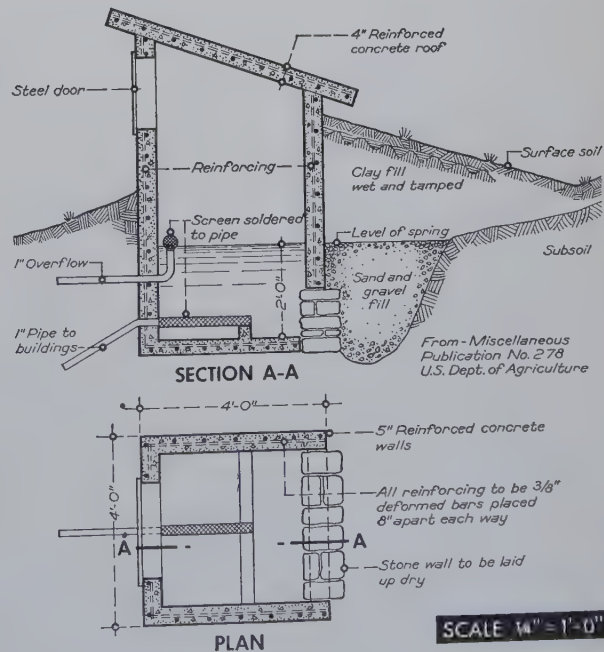
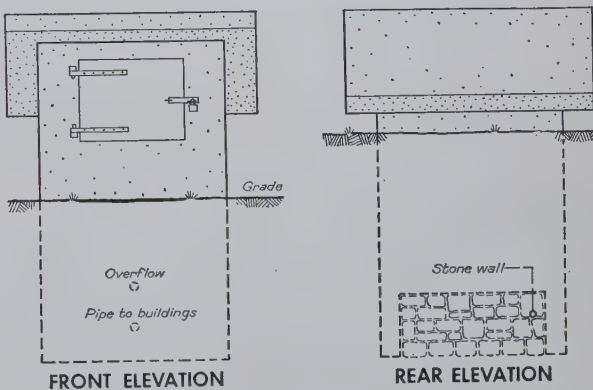
SEATS AND SUPPORTS. Seats of 2 or 3 pieces are recommended as being less likely to warp than a single plank. Comfort and drainage are improved by tilting the seats slightly. Douglas fir, redwood, and Southern cypress which are free of pitch and kiln-dried or air-seasoned are most commonly used. Painting and preservative treatment increase the life of the wood. Supports attached to the risers facilitate cleaning, are easily placed. Supports are spaced 4'-0" o/c. Seats should be cut at expansion joints.

BIBLIOGRAPHY. See Portland Cement Association "Concrete Grandstands."

FARM SPRING HOUSE

Index No.
D 21 d
PLANNING

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF



MONTHLY WASHINGTON REPORT

COMPILED BY A. D. TAYLOR OF CLEVELAND

The following information is prepared each month as a result of observations of activities in the different Government agencies, engaged in National Defense. The Editors welcome comments and suggestions from readers as to the kind and extent of information which may be of the maximum interest to members of the technical and planning professions and to the building industry for whose benefit these monthly reports are published here.

★

GENERAL PROGRESS

The May issue of this magazine was confined largely to those problems concerned with the western part of the country and therefore no Washington Report was included in that issue.

There is every indication that the further construction program will be greatly expanded in all of its aspects concerned with the development of new cantonments, ordnance projects, and private industry.

The appropriation approximating four billion three hundred and ninety million dollars made available under the Fifth Supplemental Defense Appropriation Act, together with other appropriations provides funds for this further activity.

★

DEFENSE HOUSING

Under "Release No. 92" from the office of the Federal Works Agency, a tentative list of new housing projects is being announced. This list is available upon application to the Federal Works Agency in Washington, D. C. These projects will be allocated mainly to the United States Housing Authority and to the Public Buildings Administration. To the date of preparing this report, the allocation to these respective agencies had not been

officially announced and for those who are interested in this specific allocation, communications should be sent to the United States Housing Authority and to the Public Buildings Administration for information upon these respective housing programs. There is much increased evidence of further defense housing being developed through private capital in connection with industries where such housing will be of a permanent character.

There is also evidence of increased employment of offices of architects, engineers, and landscape architects in private practice, to provide the required technical planning services on defense housing projects.

★

FEES FOR TECHNICAL SERVICES

During the past week a large committee representing the professions of architecture, civil engineering, landscape architecture and mechanical engineering met at the office of the Federal Works Administrator with representatives from the Federal Works Administration, the Housing Authority, the Public Buildings Administration, and the Works Progress Administration to further discuss the question of fees to be paid for the services of architects, engineers, and landscape architects on Defense Housing and on regular low rent housing projects.

Further consideration is being given to this problem by representatives of the Government and it is hoped that a solution will be found on which to determine a basis of fees generally acceptable to the representatives of these Government agencies and of the respective technical planning professions.

In a recent statement from the United States Housing Authority it

was indicated that the engineers and landscape architects employed through the architect's offices to provide services on *Defense Housing Projects* are not required to pay time and one-half for overtime except as such is required by laws of States in which such work is being done. On *Defense Housing Projects*, architects are being employed on a cost-plus-a-fixed-fee basis, under which arrangements the moneys contracted to be paid by the architect for the supplemental services are considered as a part of the architect's reimbursable expense.

★

CANTONMENTS AND ORDNANCE PROJECTS

With the increase in the army personnel to approximately four million men, as now reported, there will be a number of new cantonment and ordnance projects. This list to date has not been published, although sites are being selected and negotiations are being concluded for the employment of the architects-engineers to proceed with the necessary planning as soon as the sites for the proposed projects are finally determined. At the time that these projects are announced, the architects-engineers will have been selected. In all probability a considerable proportion of this new program of planning will be placed in the hands of architects-engineers who have heretofore been employed on similar kinds of projects in the program of construction now near completion.

It is most likely that, for these further projects, on which there will probably be more time for the preparation of plans an effort will be made to have the plans and specifications completed to the extent necessary for lump sum bids, if on further consideration such method of contracting for this work seems to be a practicable procedure in

view of the emergency. There is some difference of opinion among qualified contractors and among the members of the planning professions as to the practicability of this method of completing this kind of work, especially on the major cantonment projects.

★

LEGISLATION

Bill No. H. R. 4545 to provide Community Facilities was reported in the April issue as having been passed by Congress. This bill, for some reason, has been delayed and was reported upon favorably by the Committee on Public Buildings and Grounds of the House of Representatives, and will be discussed on the floor of the House on May 10. In all probability this Bill, which will make 150 million dollars available for community facilities as reported in the April issue, will be passed before these notes are published.

★

OPPORTUNITIES FOR EMPLOYMENT

There continues to be a great amount of misdirected energy expended by members of the technical planning professions in seeking employment to provide professional services on Defense Projects. There will be a very limited amount of employment for offices in private practice on major defense projects on contracts direct with government agencies, especially in the Construction Division of the War Department and in the Navy. There will be greater opportunities for employment on Defense Housing Projects and on projects for private industry financed through Government loans and otherwise.

There will be opportunities for employment of many members of the technical planning professions on a salary basis and for a very limited period (approximating 3 to 5 months) through the offices of the architects-engineers commissioned to provide services in the design of new cantonments and ordnance projects.

★

AIR CORPS ACTIVITIES

The Air Corps is rapidly expanding its activities. A considerable number of new sites for air fields, to be used for various kinds of military activities, are being selected in different parts

of the country, requiring the services of engineers and other technical men for their layout and development. The final detailed design of these fields is being done through the Corps of Engineers.

The preliminary work of site selection and general layout for these new air fields, many of which will be extensions of existing municipal air fields, will be done by members of the technical professions employed on a salary basis in the Air Corps. The detailed plans and construction and the supervision of construction will be performed by the Corps of Engineers.

★

SELECTION OF SITES

Through the offices of the Zone Quartermaster investigating boards have been studying and preparing reports on sites for proposed cantonments and ordnance projects. The sites for all of these projects will have been selected prior to the time that this report is in print. "Criteria" for the selection of sites to be used for cantonments have been prepared under the supervision of the Quartermaster General's Office and may be available to the members of the technical professions who are especially interested in the procedure being followed for the selection of such sites. A most thorough analysis of these prospective sites is being made prior to the final selection. To the extent that highly specialized and technical knowledge is required on specific problems relating to the determination of the sites, such consulting services are employed through the Zone Constructing Quartermaster's Offices, a list of which offices may be procured through the Constructing Division of the Quartermaster General's Office in Washington.

★

C.C.C. PROGRAM

The opportunities for employment of the technical planning professions in connection with the C.C.C. Program are rapidly decreasing because of the curtailment of the C.C.C. activities. Under the present conditions, where industry requires so many of the younger men heretofore unemployed and enrolled in C.C.C. camps, the enrollment in these camps is rapidly being reduced, with the result that this part of the program will be much curtailed.

BULLETINS PUBLISHED

Bulletins covering problems of sewage, water supply, railroads, roads, site planning, and surveys and maps have been published for limited distribution among the architects-engineers and others, by the Construction Division of the Quartermaster General's Office. For those members of the technical planning professions especially interested in the contents of these bulletins, it is possible that to a limited extent, copies may be available.

★

W.P.A. PROJECTS

A rather extensive program is actually developing for the use of W.P.A. labor in performing certain phases of the construction program not included in the initial appropriations for the development of cantonments and other army posts, including some of the housing. This work is confined largely to problems of finished grading, recreation areas, walks, and planting. In all of this work, the planning for which is being diverted, so far as is practicable to offices in private practice, there should be opportunities for additional employment especially of engineers and landscape architects in completing these camp development plans and other plans.

★

ZONE OFFICES

The procedure of decentralization of design and construction activities continues in the Quartermaster General's organization. Zone architects and zone engineers are functioning in these zone quartermasters' offices (nine zone offices scattered throughout the United States). It is quite probable that zone landscape architects or site planners will be appointed in these offices to collaborate with the engineers and architects in the planning problems.

The major contracts for architect-engineers' services will be negotiated through the Contract Board in the Construction Division of the War Department and supplementary contracts for technical planning services to the extent required on special planning problems will be negotiated in the field through the architect-engineers with the approval of the Local Constructing Quartermaster and the Zone Constructing Quartermaster's Office.

May 8, 1941

DEFENSE WORK BY STUDENTS AT UNIVERSITY OF NEW HAMPSHIRE

DESCRIBED BY PROFESSOR ARNOLD PERRETON, A. I. A.

A Defense Housing project for 200 families has recently been completed and placed on exhibition by a group of eight senior architectural students at the University of New Hampshire, which has proved of keen interest to them and to the public as well.

This project was selected by the students for a semester's design work because of the current interest in Defense Housing for the Portsmouth, N. H., Navy Yard District 12 miles away. It was also selected because it provided them with the opportunity to correlate their architectural design training to actual needs and site conditions, and to gain the valuable experience of co-operating with the various civic and planning officials who were consulted, and collaborating with each other during the development of the project. While this was a student project it was, nevertheless, carried out in the most practical and professional manner possible.

In view of the magnitude of the project the work was done in stages of group collaboration and individual work. The entire group collaborated in the research, survey work, site selection, and in the development of the site. Each student, according to his "bent," selected a particular phase of the survey work in which he was most interested. One went to the navy yard office to determine the amount and type of housing needed, another to the city engineer and appraiser for street, sewer, water layout and land values, still another to the Regional Planning Commission to determine the trend of residential development in relation to the commercial, industrial, educational and recreational planning, and so on until all the data was collected. This material was then compiled, presented graphi-

cally and tabulated so that it could be used by all in selecting and planning the site.

The development of the site was an interesting phase of the work. After the site was selected, the seniors went to work making contour maps, spotted all the trees and made relief models of the area, cardboard layers to scale indicated rising knolls and irregular ground and from these was determined the most natural and practical layout for sewer, water mains and general street design. Then each student, armed with all the data, made an independent preliminary subdivision study of the site. All of these studies were then judged by the students with the assistance of planning consultants and critic and the best features of each noted. Following this, a second prelim was made by each student, incorporating in his new design the best features of the previous study. These were again judged and the three students with the most outstanding schemes collaborated in the development of the final subdivision layout. Others in the class, according to their ability, made a scale model of the development showing the street layout and location of all housing; another group prepared the financial statement of the development including improved land cost, street and individual lot cost, etc. In this final subdivision area of 46 acres provisions were made for 200 families in single, double, terrace and apartment house dwellings. The area also included a nursery and a playground for children in the neighborhood and a small business section.

The next phase of the work was individual. Each architect of the future selected a type of dwelling within the development most to his

liking and designed it to conform with the others. This procedure resulted in some very interesting collaboration and architectural development. In all cases the housing design presented a major difficulty. Since Portsmouth is noted for its fine old colonial houses, it was considered to be in good taste to retain this atmosphere, but little creative value existed in copying or modifying the houses of the old school. It was finally decided to make the houses of a modern design that would fit into the Portsmouth scene. Thus each student was able to work on plans of entirely new creation in which old and new materials, sunlight, ventilation, privacy, economy and good lines were the basic consideration. It was surprising how well the modern house so designed blends with the better historic buildings in the Portsmouth district.

Models illustrating their detailed drawings of the houses next were made by the students, with each family's dwelling including a living and dining area, kitchen, sleeping quarters for four persons, bath and garage. All single houses were designed to save space and to serve the utmost flexibility in use, with the exterior devoid of the customary front and rear treatment, but designed with an all-round attractiveness which lends each house to varied placement in the development without additional changes. The double houses were completely divided to ensure privacy and yet were open to their respective garden area. A new idea for Portsmouth was the incorporation into the project of a terrace house—an innovation which finds six houses built together in a staggered pattern, thus utilizing the maximum sunlight area. Another innovation was the eight-



apartment house design which allowed each apartment full depth of the building and a direct access to stairs which also screened the porch of each apartment. In all design the garages were made an integral part of the dwelling.

The major consideration in planning the project was low cost. Land values and costs of labor and materials were carefully figured to odd cents. According to the estimates of the young architects, none of the dwellings would be expensive. Single houses, including landscaping, would be in the \$4,000 to \$5,000 class, double houses in the \$8,000 class, and terrace and apartment houses \$36,000 to \$40,000. The entire project complete for 200 families could be built for slightly less than \$1,000,000.

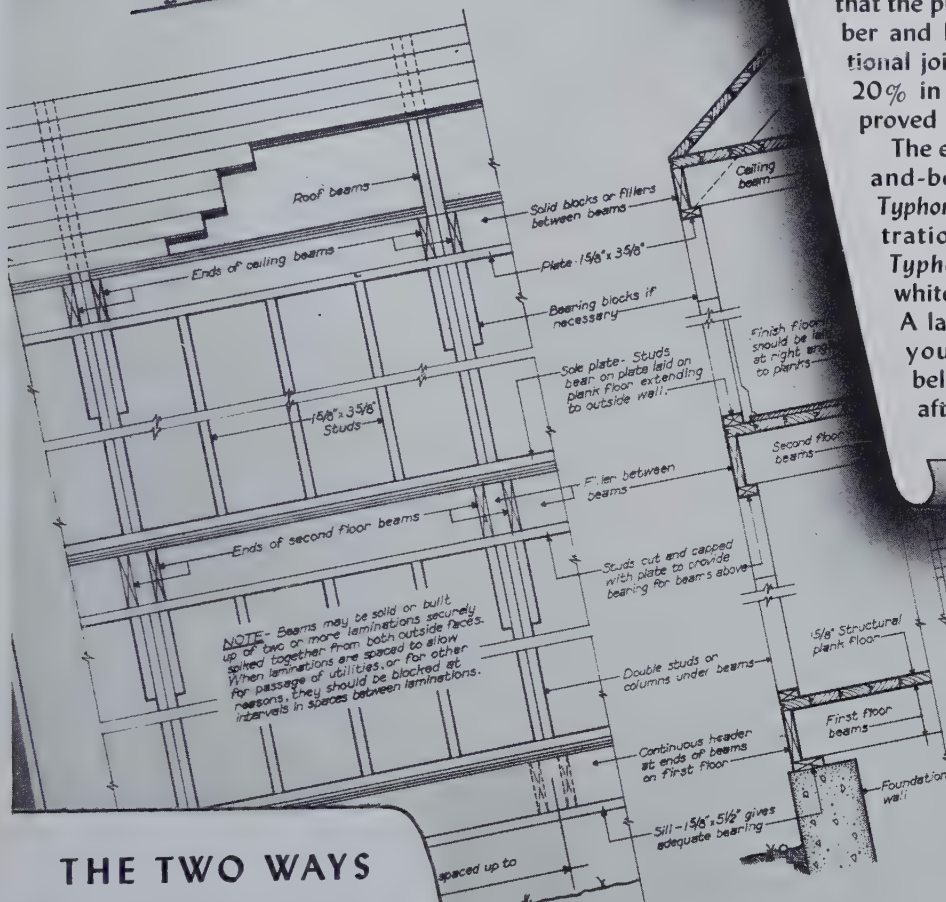
The most gratifying factor in the whole experiment was the fine collaboration amongst the students, the splendid co-operation of the civic officials with the students, and the keen interest shown by the public in the development when exhibited. Several requests for designs were received by the students as a result of their work on the project.

It will be of particular interest to compare this student project with those of the government housing project designed by the procurement division. Judging from the sites already selected and the houses under construction, I am betting on my students. A. P.



THREE STEPS IN THE DESIGN OF DEFENSE HOUSING BY NEW HAMPSHIRE UNIVERSITY STUDENTS ARE SHOWN AT THE LEFT: "INDIVIDUAL WORK" (TOP) AS HAMILTON MYERS PUTS FINISHING TOUCHES ON THE MODEL OF A TYPICAL ONE-FAMILY HOUSE; "DISCUSSION" OF A SIX-FAMILY TERRACE HOUSE BY RICHARD WINN, ABBOTT JONES, LLOYD HALL, EDWARD MARCOTTE, AND HARRY ROTH; AND "COLLABORATION" ON A PROJECT MODEL BY HALL, MYERS AND WINN

FRAMING DETAILS PLANK-AND-BEAM SYSTEM



NOTE—Beams may be solid or built up of two or more laminations securely spiked together from both outside faces. When laminations are spaced to allow for passage of utilities, or for other reasons, they should be blocked at intervals in spaces between laminations.

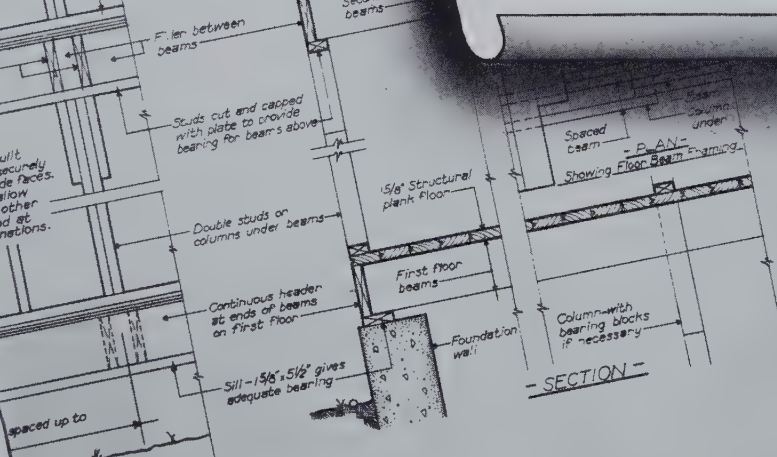
THE TWO WAYS

...you can test the quality of Dixon's Typhonite Eldorado pencils are (1) by working with them and (2) by inspecting the blueprints made from Typhonite Eldorado drawings. The perfection of detail is due to the uniform opacity of lines drawn with Typhonite Eldorado leads. Which in turn is due to the presence of Typhonite—whose evenly minute particles are produced in a typhoon of super-heated steam—an exclusive Dixon process. Pencil Sales Department 167-J6. JOSEPH DIXON CRUCIBLE COMPANY, Jersey City, N. J.

THE ORIGINAL BLUEPRINT

...of this drawing illustrates the slow burning or mill construction long used in industrial structures. It is claimed that the plank floor requires less lumber and less labor than the conventional joist type, with a saving of over 20% in cost and a considerably improved resistance to heat loss.

The essential principle of the plank-and-beam system is shown in this Typhonite Eldorado detail (the illustration is one-fifth actual size). A Typhonite Eldorado was used on a white tracing paper of average quality. A large-size blueprint will be sent to you free. Write the address given below. (Offer good for only 30 days after appearance of this magazine.)



This blueprint was reproduced directly from working drawing made with DIXON'S Typhonite ELDORADO PENCIL using degree F

PERFECT BLUEPRINTS ARE MADE WITH DIXON'S

TYPHONITE

ELDORADO

made in U.S.A. DIXON'S ELDORADO... HB

(Continued from page 16)

neither time nor space permits proper elucidation. Permit me to say, however, that any idea you may entertain about the permanent's "security" and "good pay during depression years" is just an old bogey idea that existed up 'til ten years ago. Today it is no more. Since long before the "depression" permanents have had tough sledding. With the advent of the present administration, "temporaries" have been brought in at higher salaries than the "permanents" were getting, the local cost of living has been pulling itself up by its bootstraps and today the "permanent" is again holding the bag. We have an idea that something will be done about it this time, if they acquire a leader and fight their cause properly.

Something's in the wind about the Architect's Role in Civil Defense. The local A.I.A. chapter has prepared a preliminary report to the Institute and subsequently to the necessary government agencies. We expect to hear more about this in the near future from Chairman *Horace Peaslee*.

The new Cosmos Club building will soon be a reality. *Francis P. Sullivan* and *Arthur B. Heaton* are associated on this project. The drawings are practically complete and *Joseph A. Parks* is now making the rendering.

RED

T.V.A. EXHIBITION

Photographs and models illustrating the T.V.A. design idiom resulting from harmonious collaboration of architects and engineers in the vast government project of the Tennessee Valley are now being shown at the Museum of Modern Art in New York. The material represents the engineering and architectural work of ten great dams, with their control buildings, power plants, visitors' buildings and employee housing.

RELIEF CHECK

For the relief of the children of British architects the United States Architects' Fund for the R.I.B.A. has sent abroad a check for \$2,600. This was handed *Frederick G. Frost*, Honorary Chairman of the Fund, by *William Lescaze*, Chairman, at a dinner last month of the New York Chapter A.I.A. at which *Wilfred H. Gallienne*, British Consul in New York City, was guest of honor.

AT LARGE IN THE LIBRARY

ARCHITECTURAL DESIGN, by *Ernest Pickering* (\$6.50 a copy, 330 pages, illustrated — *John Wiley & Sons, New York*).

THE ART OF COLOR AND DESIGN, by *Maitland Graves* (\$3.50 a copy, 292 pages, illustrated — *McGraw-Hill Book Co., New York*).

WHITE PILLARS, by *J. Frazer Smith, A.I.A.* (\$6.00, 252 pages 8½" x 11", with pen drawings and plans by the author—*William Helburn, Inc., New York*).

Ernest Pickering, Professor of Architecture at Cincinnati University, has revised his first edition of ARCHITECTURAL DESIGN, published in 1933. It is an excellent student's text, however much it may disappoint the more energetic Modernist already firm in his own background.

Its quality lies in the consistent avoidance of dogma in reference to the modern trend in design. The author is perfectly conscious, judging by the preface, of the coming of a new social and economic order; and stresses the fact that architectural education must change, the better "to express contemporary culture" later. Farther along, past many well-selected plates and clear diagrams, he dares even to say, "Architecture must be expressive of the present AND the future."

True to his profession, he emphasizes the need for a basis of experience and comprehension of precedent, but is extremely cautious about outlining the future. Thus, after the student has developed this background through study under intelligent direction, the creations of his architectural maturity will be his own, not Mr. Pickering's.

Let the reader beware of the title of *Maitland Graves'* book, THE ART OF COLOR AND DESIGN. The book deals specifically with an analysis of the principles of the elements mentioned, but only in a minor way with their relation to art.

I feel that the author, in attempting to outline these principles completely and simply at the same time, has fallen into the very pitfalls of complication which he set out to

avoid. As a result, the beginner will undoubtedly be staggered by the number of rules, charts, and algebraic reference symbols; if he does, on the other hand, absorb them all through an enforced discipline, he will require still more discipline to free himself from them for eventual self-expression. And the maturing artist, though he may never question their truth, may well, through his maturity, question the necessity of studying them to such depth.

In short, the goal of the book is a knowledge about one aspect of art and all its special phraseology, useful mainly to the artist whose approach is identical with Mr. Graves'.

WHITE PILLARS is a book on the Old South, centering on the mansions of which the title describes the most prominent characteristic. The author, *J. Frazer Smith, A.I.A.*, has translated the elegance and dignity of the times in 100-odd pen-and-ink drawings of selected examples. Best of all, there is included a map with outlines of suggested pilgrimages through such sections as the Natchez Trace, the Felicianas, the Bayou Country.

This is not a book on architecture. It is a book on a half-forgotten civilization, seen through the monuments it produced, and as such brings our architectural heritage into rivalry with that of the French Chateau country or with the English manors.

It is easy to forget, in these days of fast-moving events, that within the borders of our New World a complete civilization was born, enjoyed a longer life-span than have the German or Italian Empires, and was then ruthlessly destroyed—all before those dictatorships came into being!

R.H.M.

THIS IS GREECE, photographs by former students of the American School of Classical Studies in Athens (\$2.50 a copy, 128 pages—*Hastings House, New York*).

Here is the Greece that has survived many an invader. This is the Greece that will live on, in the quiet of Thessalian olive-groves, in the magic of names like Delphi, Euboea, and Amphissa, in proud mountains crowned with immortal marbles, in the infinite peace in the eyes of old fishermen and peasant women.

Only a map is lacking to link these scenes to today's passing realities.

R.H.M.

NEWS-FACTS

USG

ACOUSTONE EDITION

June 1941

Vol. I No. 6

Published by the UNITED STATES GYPSUM COMPANY, 300 West Adams Street, Chicago

INSURANCE COMPANY DETERMINES HIGH COST OF NOISE IN OFFICE

Exact Measurement on Increased Employee Efficiency Made After Acoustic Treatment

HARTFORD, CONN.—Here is an incident that is more than just an amusing bit of office trivia. The moral to this story is backed up by cold figures which prove the importance of noise reduction treatment in increasing the efficiency, *esprit de corps*, and good-will of office workers.

The Aetna Insurance Company personnel director received regular complaints about a certain employee in the Control Department whose loud talk annoyed his co-workers. Architectural men know that there is "one in every office." The insurance company treated the ceiling of this department with sound absorbing material and for one year there were no complaints about this particular person! In fact, upon inquiry among those who had voiced complaints it was said that the offender had improved so materially that he was no longer causing trouble!

As part of the test being conducted on the efficiency of sound treatment, the ceiling was covered after one year with plaster board. The very first indication that the sound treatment during the previous year had been extremely efficient was the renewal of the complaints against the loud talker!

The complete Aetna test consisted of obser-

vations for one year without sound treatment, then one year with treatment, and then several months with the acoustic material covered by plasterboard to produce check figures. A careful record of errors as well as efficiency determined by bonus work showed that comptometer clerks made 52% fewer errors after treatment with sound absorption material and typists' errors decreased 29%. P. B. Griswold, Assistant Secretary of the Aetna Life Insurance Company, said in an address delivered before the National Office Management Association, *Employers must realize this treatment will pay big profits through less labor turnover, increased efficiency and fewer errors, and a better general attitude in employee toward employer!*



The illustration shows the Mars Moisture Detector being used to determine whether sufficient moisture is present in the plaster wall to destroy the adhesion of paint, wallpaper or acoustic tile.

Cleanability of Acoustone Proven After 11-Year Test

CHICAGO, ILL.—Since 1929 the Quaker Oats Company have cleaned their Acoustone ceilings at intervals of 18 months. At the completion of the last cleaning, the assistant treasurer of the Quaker Oats Company said:

The tile has actually been restored to its original color and cleanliness.

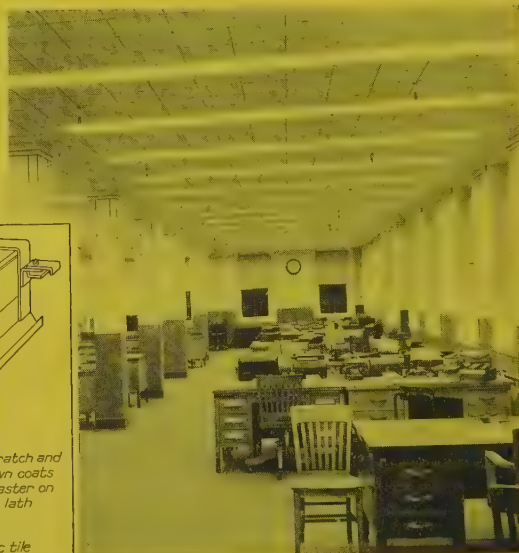
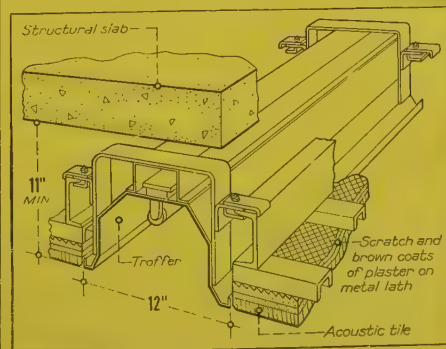
The Quaker Oats Company offices are located in the Board of Trade Building in the Chicago Loop—exposed to air carrying more than the average quantity of dirt and soot. In the office of a food manufacturer, the conviction of extreme sanitation must be preserved for its effect on visitors and workers. That the cleanability of Acoustone has provided a solution is summed up in the statement of the Quaker Oats Company:

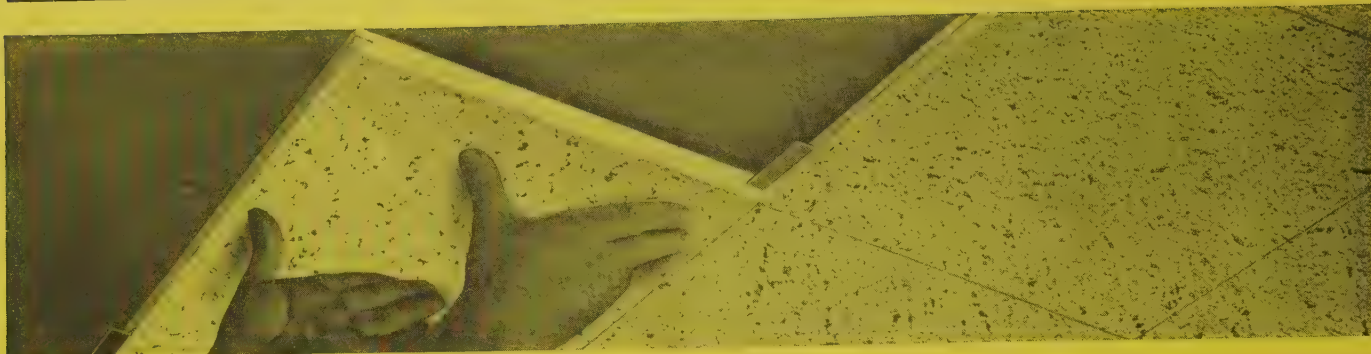
We are exceedingly well pleased with the permanent beauty, the effectiveness and ease of maintenance of Acoustone Tile.

The recent development of the USG improved sanding and vacuum cleaning machine makes possible the restoration of Acoustone Tile to its original color and cleanliness an even more efficient operation than before.

NEW LIGHTING FOR USE WITH ACOUSTIC TILE

Developed especially for use with acoustic treatment such as USG Acoustone, several companies have announced the availability of continuous recessed fixtures for general illumination, utilizing white or daylight fluorescent lamps. USG will furnish names of manufacturers on request.





A variety of sound absorbent materials which meet the complete range of acoustic and economic requirements, have been developed by thorough field and laboratory research. (See table below.)

Sound insulation devices and systems to prevent objectionable transmission of unwanted sounds through walls, floors and ceilings offer the solution to sound control in all types of buildings.

A staff of competent acoustic engineers is available to assist the architect, without obligation, on any problem involving noise absorption, audience room correction, or sound insulation in new or existing buildings.

All materials except Sabinite are applied by USG district sound control contractors, thus assuring correct installation and adequate treatment. Sabinite is applied by plasterers under the supervision of a USG District Engineer.

Acoustone

Acoustone is formed from inorganic filaments of specially processed fibers, manufactured in tile form in various sizes, colors and thicknesses. It is as enduring as the structure in which it is installed. Acoustone combines to a unique degree the properties of high sound absorption with a maximum versatility in design treatment.

Into each Acoustone unit is inserted a thin metal spline. When applied, this spline fits firmly and snugly into a slot in the adjacent tile. "Spline-Alinement" results in a truly accurate and smooth installation. Note the travertine-like texture of the Acoustone.

High Absorption

Acoustone absorbs at 512 cycles from 61% to 84% of the incident sound, depending upon the thickness used. When applied to ceilings Acoustone provides an apparent reduction in loudness within the room of about 40% to 55%.

Decorative

The surface texture of Acoustone is similar to that of travertine stone. No two tiles are exactly alike in texture. The tiles with a $\frac{1}{8}$ " chamfered edge permit the creation of interesting joint patterns. The plain edge tile is so accurately formed that joints between tiles are scarcely discernible. The standard colors of Acoustone are white, ivory and cream, integrally tinted throughout the entire tile substance—not surface dyed or painted. Integral coloring to match any decorative scheme furnished on order. Mill-painted Acoustone in white is available.

Motif'd Acoustone

Tiles bearing special designs will be supplied by USG, in which the tile is etched by a special manufacturing process. This results in a different angle of light reflection on the treated areas so that delicate and interesting patterns are created in the finished installation.

Fireproof

Acoustone contributes to fire safety in buildings where it is used because it will not burn or support combustion.

Paintable and Sanitary

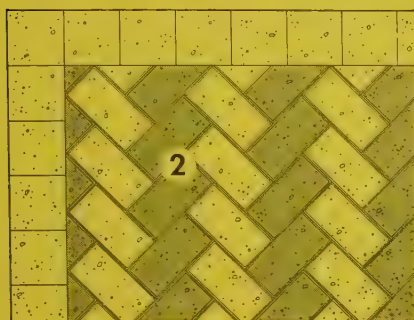
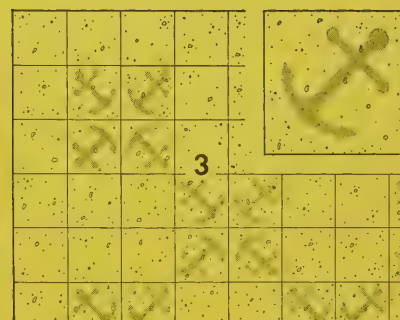
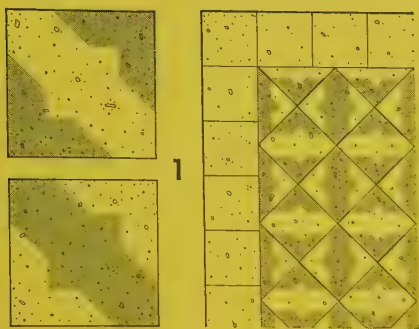
Metallic lusters may be applied over Acoustone or it may be painted with lead and oil or similar full-bodied paints, without materially reducing the sound absorption even after repeated coats.

Acoustone provides an aseptic, inorganic and cleanable sound absorbent for hospitals, sanitoriums, restaurants and other buildings. The unpainted tile are easily cleaned with a vacuum cleaner. Severe accumulations of dirt may be completely removed with the newly developed sanding and vacuuming device. One large user of Acoustone found that the cost of vacuum cleaning was about 2/10ths cents per square foot.

COMPREHENSIVE TABLE OF USG ACOUSTIC PRODUCTS

PRODUCT AND DESCRIPTION	VARIETIES	TEXTURE AND CLEANABILITY	COLORS AND LIGHT REFLECTION FACTORS			FACE SIZES	THICKNESSES	COEFFICIENT		WEIGHT in lbs. per 100 sq. ft.
			Integral Colors (Unpainted)	Factory Applied Colors	Paint for Redecoration			at 512	Noise Redctn	
ACOUSTONE Relative cost* Y. Incombustible. Processed mineral filament tile kerfed to receive a thin metal spline for exact alignment of tile faces to an even surface. Installed by cementing to any clean, level surface strong enuf to support it, or by mechanical attachment.	$\frac{1}{4}$ " chamfered edge to create decorative patterns in the jointing. Square-edged, so that joints are scarcely discernible in a ceiling installation.	Resembles Travertine, no two tiles are exactly alike. Any design may be etched into tiles by "Motif'd" process. Acoustone is easily cleaned with a vacuum cleaner.	White75%	White ..80%	Repeated painting does not lessen its sound absorption.	12" x 12" 9" x 18"	9/16"	.61	.60	108
			Ivory65%				11/16"	.73	.65	131
			Cream60%				13/16"	.79	.70	141
			Special color on order.				15/16"	.84	.75	153
PERFATONE Relative cost* Z. Incombustible. A perforated metal pan-shaped tile concealing a sound absorbent pad. Spring clip tee runners are fixed to ceiling channels or furring. Tiles are pushed into runners and held by spring engaging tile edges.	—	Perforations comprise only 14% of the tile surface; are small enough to blend into tile coloration. Surface finish is baked enamel. Perfatone withstands many washings with soap and water.	—	White75%	May be repeatedly painted with any good interior paint without affecting the sound absorption.	12" x 24" center scored	1 9/16"	.98	.85	Assembly 2.50 lbs. per sq. ft.
QUIETONE Relative cost* X. Combustible. An economical, felted wood fiber tile. Installed by cementing to any clean, level surface strong enough to support it.	—	Sanded or brushed texture. May be cleaned with a vacuum cleaner.	In sanded Light Ivory57%	White67%	Colors ground in oil or japan, reduced with mineral spirits.	12" x 12"	$\frac{1}{2}$ "	.58	.60	43
			In brushed Light Buff 53%				1"	.73	.70	67
SABINITE Relative cost* W. Incombustible. A mixture of light weight aggregate, gypsum plaster or Portland cement, and other ingredients, proportioned to produce a permanent sound absorbent surface. Sabinite applied in two or three $\frac{1}{4}$ " coats.	F—applied over scratch and brown coats of gypsum plaster. 38—over Portland cement or USG Oriental stucco base, for high humidity environments, such as swimming pools.	Like a heavy sand float finish on ordinary plaster.	White53%	—	May be spray painted or tinted with a water vehicle paint such as USG Texolite.	—	F— $\frac{1}{2}$ "	.31	.50	215
			Ecu44%				F— $\frac{3}{4}$ "	.55	.55	327
			Ivory53%				38— $\frac{1}{2}$ "	.32	.50	215
			Cream52%							
			Buff43%							

* W indicates least expensive, Z indicates most expensive, etc.



Here are the types of designs you can create for your "Motif'd Acoustone" sound control treatments. The light picks up the etched areas to create a contrast in tone, producing quiet and interesting patterns. In (1) a geometrical pattern results from only two separate tile patterns. In (2) a herringbone pattern is shown with V-joints. In (3) a single tile design gives a nautical character, and in (4) another flush joint geometrical pattern. All designs do not lend themselves to the "Motif'd" treatment and it is, therefore, desirable to consult with USG during the development of a special design.



A. I. A. FILE NO. 39B

Acoustone Specifications

A. I. A. FILE NO. 39B

NOTE—Notes in small type are explanatory and are not a part of the Specification. Acoustone is installed only by USG district sound control contractors. The Specification should, therefore, indicate this fact for the benefit of general contractors who may be bidding on the entire building. Additional copies of this Specification will be gladly supplied on request.

1. GENERAL CONDITIONS. The current edition of the A. I. A. General Conditions is a part of this Specification.

2. WORK INCLUDED. This Section comprises all labor and materials necessary and incidental to the application of Acoustone to (...list all wall and ceiling areas to be covered with Acoustone...)

3. MATERIALS AND INSTALLATION. Use Acoustone as manufactured by United States Gypsum Company, Chicago. Acoustone is to be installed only by a USG district sound control contractor. Use Acoustone tiles (...specify thickness...) thick, having (...flush or V...) joints. Use size of tiles shown on drawings and follow joint patterns shown. Lay Acoustone with close joints and position tiles accurately.

4. MOTIF'D DECORATION. Furnish and install decorated tiles to exact pattern shown on drawings.

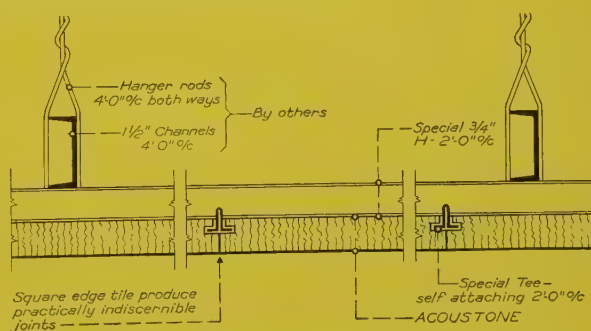
5. ALLOWANCE. Allow the sum of dollars to cover Acoustone to be furnished and installed by United States Gypsum Company or one of its authorized erectors as directed and approved by the Architect.

The Architect may wish to arrange for this work separately in order to maintain close control over it. The A.I.A. *Handbook of Architectural Practice* says that such allowances form an entirely legitimate and highly useful method of covering items of such a nature that good results are not to be had from competitive bidding. Nevertheless it is well to completely specify and bind this Section with the other Specifications so that the General Contractor and others can refer to them and to understand what work is to be done under the allowance provision.

6. COOPERATION WITH OTHER TRADES. Refer to the Sections of these Specifications containing references to

other work which affects or must be carried on in conjunction with the work of Acoustone installation. Cooperate fully with persons carrying on such work so as to cause no delay, interference or harm to the Owner's best interests.

7. HUNG CEILING INSTALLATION. Channels 1½" spaced 4'-0" o/c, supported by hanger rods 4'-0" o/c, will be installed by others. The Contractor for work in this Section must furnish and install special 1" H sections, special T sections and the Acoustone tile of thickness specified above.



8. CEMENTED APPLICATION. A clean level surface consisting of (...a brown coat of plaster offers the best base for Acoustone, although any dry masonry surface is acceptable...) will be installed by others.

Do not apply Acoustone to any surface which is not dry at the time of application or to any surface which may become damp from condensation, seepage or other causes.

There are many cases where sound treated rooms might occur under service rooms where water leakage would be a possibility—such as a hotel kitchen over a lounge or public room. Another case where water damage could occur would be a storage room containing inflammable goods located over a treated room. In case of fire the water used might destroy ceilings below the room in which the fire occurred, for which reason floor dampproofing is often used in such cases although normal tenancy might involve no possibility of water leakage.

FIVE-MINUTE REVIEW OF ACOUSTIC ENGINEERING DESIGN PROCEDURE

Expert Services

Since the acoustic properties of a room depend upon many factors other than total room absorption—such factors including shape, size, distribution, frequency, characteristics of absorption material and the particular uses contemplated—it is recommended that qualified consultants be retained and that designs for acoustic treatment be made under competent advice. A staff of competent USG engineers is available to assist the architect, without obligation, in an advisory capacity on any problem involving noise absorption.

Total Absorption

Since both noise quieting and reverberation time calculations involve the total sound absorption of the room, it is necessary to first review the meaning of *total absorption*.

Total absorption of the room is the sum of the number of units absorbed by the walls, floor, ceiling, seats, furnishings, the audience itself, etc. The number of units absorbed by a given wall or other surface is the product of its area in square feet and its absorption coefficient. The *absorption coefficient* of a material is the percentage of sound absorbed by 1 square foot of the surface when sound strikes it. The absorption of seats and audience is given in tables of coefficients by the object and not by the square foot.

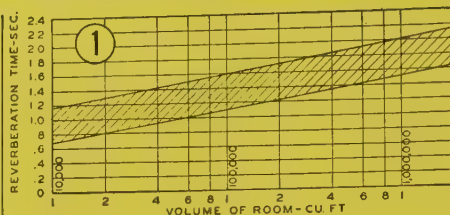
Reverberation Time

Expert opinion now available is in substantial agreement that the reverberation time shown in chart 1 will result in satisfactory intelligibility of speech and enjoyment of music.

The most commonly used formula for computing required total absorption is that given by W. C. Sabine, namely:

$$\text{Total absorption} = \frac{\text{volume of room}}{20 (\text{reverberation time})}$$

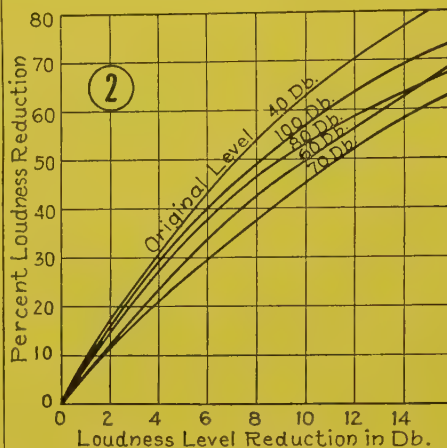
It is customary to assume the presence of an average audience. It has been customary, also, to



use the 512 (middle C) cycle coefficient for usual auditorium correction calculations, although under critical conditions it is important to consider the coefficients at other frequencies.

Applying the Formula

Let it be assumed that the calculation indicates 4,000 absorption units are required in a room to produce the ideal time of reverberation. A further calculation reveals that the room without treatment, using plastered walls and ceiling, will have



a total absorption of 1,900 units. Therefore, the difference or 2,100 units must be supplied by replacing plaster with a sound absorbing material similar to, let us say, Acoustone with a coefficient of .73 at 512 cycles. Since each square foot of plaster which is replaced by treatment has a coefficient of .03, the net gain will be the difference between .73 and .03, or .70. Therefore, the 2,100 additional units of absorption will be supplied by replacing 3,000 square feet of the plastered surface with sound absorbent Acoustone.

Noise Reduction Calculations

The ear does not judge loudness in direct proportion to the physical intensity expressed in decibels. The Bell Telephone Laboratories have determined a relation between apparent loudness and the intensity level which is shown in chart 2.

The reduction of sound intensity expressed in decibels can be easily determined by the following formula, after which a reference to the graph will indicate the reduction in loudness as judged by the human ear:

$$\text{Reduction in db} = 10 \log \frac{\text{treated room absorption}}{\text{untreated room absorption}}$$

In determining the absorption for quieting noisy offices, restaurants, etc., the numerical averages of the coefficients from 256 to 2,048 cycles is recommended for use, and is called the "noise reduction coefficient."

Design Procedure

It is good practice in noise quieting to treat enough area to give a reduction of at least 6 decibels. From chart 2 it will be seen that this means an apparent loudness reduction of from 30% to about 44%—depending on the original noise level. Having calculated the total absorption of the room before treatment, the desirable absorption after treatment can be found from the formula. The treated area required is found in a similar manner to that for reverberation.

UNITED STATES GYPSUM PRODUCTS

ACOUSTIC MATERIALS. Tile, metal tile, board, and plaster products for controlling reverberation and quieting sound.

INTERIOR PLASTER AND STUCCO. Fifty varieties including the famous Red Top Plaster, for every building need.

MASON'S AND FINISHING LIME.

PAINT. New Principle interior paints which are quick drying, light reflecting, free from objectionable odor, cleanable. They have high coverage and high opacity. Also primer and cold water paints and paints for exterior and interior masonry surfaces.

PLASTER BASES. A complete line of standard metal laths, gypsum lath, metal accessories and light weight economical Pyrobar gypsum partition tile.

ROOFS, FLOORS AND PARTITIONS. Pre-cast and poured gypsum slabs, and ribbed steel decks for roofs and floors. Gypsum block for partitions and fireproofing.

SHEATHING. An insulating board type and Gyplap the fireproof gypsum board sheathing.

SHEETROCK. Fireproof Gypsum panel material for dry wall construction to receive paint, wall paper or any other decoration. Also available predecorated.

SHINGLES. Asphalt and asbestos cement shingles in a variety of styles and colors.

SIDING. Asbestos cement siding in a variety of colors, also with self-cleaning Glatex surface.

THERMAL INSULATION. Board, blanket, loose fill and reflective types.

TRUSSTEEL STUDS. A system of light weight hollow steel partition framing, for speedy erection and non-inflammability.

USG PLASTERING SYSTEMS. Construction methods for applying Rocklath or Metal Lath to wood frame, steel or masonry, to reduce sound transmission and to minimize plaster cracks and joist streaking.

WEATHERWOOD. A panel material combining construction, insulation and sound deadening with interior finish.

UNITED STATES GYPSUM COMPANY
300 West Adams St., Chicago, Ill.

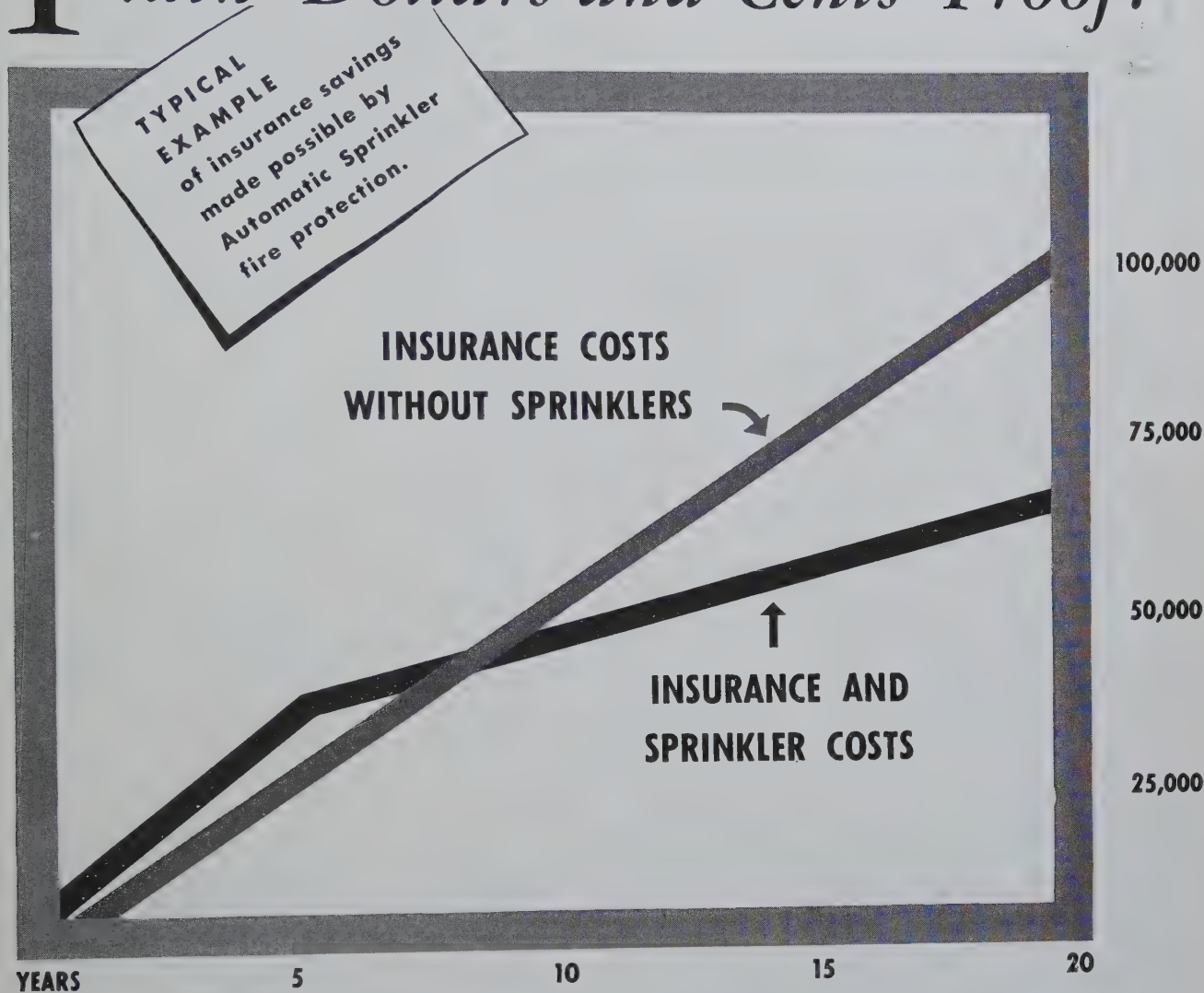


Sales Offices

Albany, N. Y.	1106 National Savings Bank Bldg.
Atlanta, Ga.	1726 Candler Bldg.
Baltimore, Md.	Court Square Bldg.
Birmingham, Ala.	1203 Comer Bldg.
Boston, Mass.	505 Statler Office Bldg., 20 Providence St.
Buffalo, N. Y.	1116 Rand Bldg.
Charlotte, N. C.	1013 Liberty Life Bldg.
Chicago, Ill.	300 West Adams St.
Cincinnati, Ohio	3015 Carew Tower
Cleveland, Ohio	627-629 Hanna Bldg.
Dallas, Tex.	30 1/2 Highland Pk. Shopping Village
Denver, Colo.	836 Continental Oil Bldg.
Detroit, Mich.	7310 Woodward Ave.
Houston, Tex.	2030 Commerce Bldg.
Indianapolis, Ind.	1015 Architects' and Builders' Bldg.
Kansas City, Mo.	4638 Mill Creek Pkwy.
Los Angeles, Calif.	807 Architects Bldg.
Milwaukee, Wis.	(At Mill) 439 W. Oregon St.
Minneapolis, Minn.	2510 Foshay Tower
New York, N. Y.	1230 Sixth Ave.
Omaha, Neb.	312 Woodmen of the World Bldg.
Philadelphia, Pa.	1616 Walnut St.
Pittsburgh, Pa.	1905 Commonwealth Bldg.
Portland, Ore.	302 Spalding Bldg.
St. Louis, Mo.	8032 Forsyth Blvd.
Salt Lake City, Utah	Dooly Bldg.
San Francisco, Calif.	2501 Harrison St.
Seattle, Wash.	1131 Dexter Horton Bldg.
Washington, D. C.	Investment Bldg., 15th and K Sts., N. W.

Samson Plaster Board Company
Sales Agents for United States Gypsum Company
Crosby Building, Buffalo, N. Y.

Plain Dollars-and-Cents Proof!



An automatic sprinkler fire protection system is practically as much standard equipment as a heating system in any industrial, commercial or institutional building built today. Simple dollars-and-cents economies in insurance premiums alone prove this. It is up to you to make sure that this system is a blended part of your building design and fits in with carefully worked out interiors.

There's a staff of Grinnell engineers near you to help make fire protection a part of the building's func-

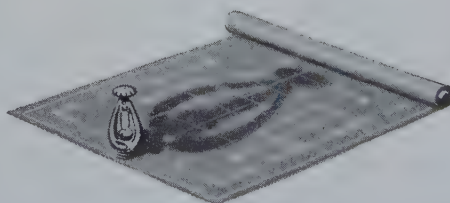
tional design. With every type of system at their disposal, Grinnell engineers can work with a thorough knowledge of your own problems and your clients' needs.

Phone for an advisory interview. You'll get the advantage of over sixty years of fire protection engineering experience. Grinnell Company, Inc., Executive Offices, Providence, R. I. Branch offices in principal cities.

GRINNELL

Automatic Sprinkler Fire Protection

A BLENDED PART OF YOUR BUILDING'S DESIGN





SEND FOR
YOUR COPY
OF THIS
BOOKLET

To understand why New Londoner Hollow-Core Flush Doors are maintaining remarkable performance records everywhere, you only need to know how these famous doors are built.

There is a definite reason back of every feature, based on years

of experience, experiment and observation.

To give you a clearer picture of the part of the door you never see, we are opening a section for inspection and showing you the how-and-why of the method used in building the "climatized" New Londoner Hollow-Core Flush Door.

AMERICAN PLYWOOD CORPORATION
NEW LONDON, WISCONSIN

IN EVERY NEW PLANT



CHOICE OF RELIABLE, SMOOTH-WORKING
EQUIPMENT SHOULD BEGIN AT THE FRONT DOOR

Every one of the new industrial plants being built today deserves the best possible door control—in short, LCN. Why? Because well-controlled doors help efficiency and contribute to the good impression employees and visitors get of the plant. (They all actually operate the doors.) The handsome new All-Steel-Equip Co. building above, at Aurora, Ill., designed and built by The Austin Co., is LCN-equipped.

LCN

Overhead
Floor
Surface Type
DOOR
CLOSERS

SERVICE DEPARTMENTS

THE MART. In this department we will print, free of charge, notices from readers (dealers excepted) having for sale or desiring to purchase books, drawing instruments, and other property pertaining directly to the profession or business in which most of us are engaged. Only those items will be listed for sale which we can no longer supply from our own stock. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.

PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed free of charge.

FREE EMPLOYMENT SERVICE. In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions.

SPECIAL NOTICE TO ARCHITECTS LOCATED OUTSIDE OF THE UNITED STATES: Should you be interested in any building material or equipment manufactured in America, we will gladly procure and send, without charge, any information you may desire.

Notices submitted for publication in these Service Departments must reach us before the twelfth of each month if they are to be inserted in the next issue. Address all communications to 330 West 42nd Street, New York.

THE MART

We will pay 35c per copy, plus postage, for copies of the November, 1940, issue of *PENCIL POINTS*. Must be in good condition. Subscription Department, care of *PENCIL POINTS*.

R. P. Ronowski, 410 N. Edgewood Avenue, La Grange, Ill., has for sale a collection of monographs on tile and manufacturers' publications issued between 1925 and 1932, \$5.00 the lot. List will be furnished on request.

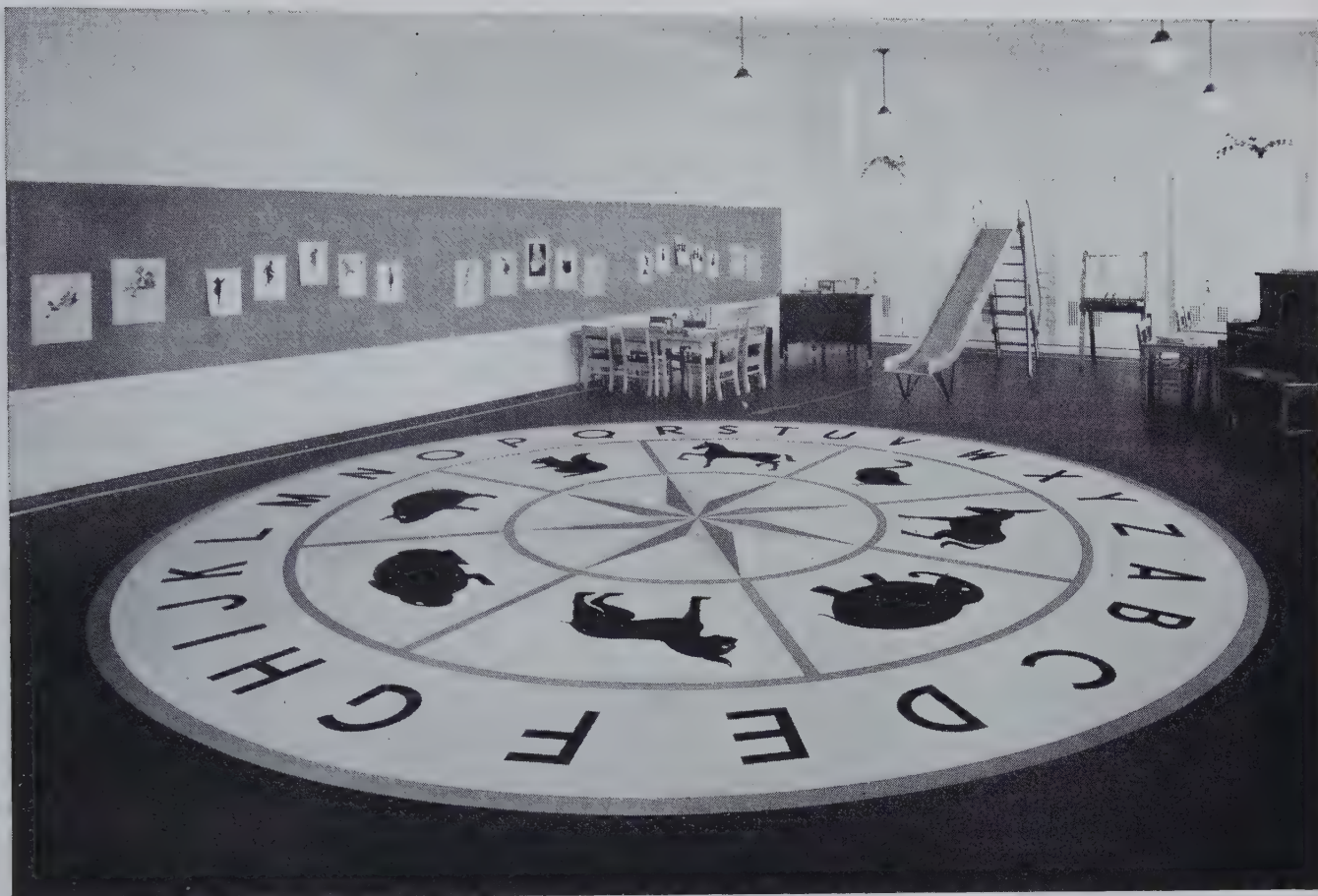
J. Harris Hein, 846 Milam Building, San Antonio, Texas, would like to purchase the following: *Kindergarten Chats*, Louis Sullivan; *Lectures on Architecture*, E. Viollet-le-duc.

David A. Pulone, 249 Hamilton Avenue, Trenton, N. J., has the following for sale: *Architectural Forum*, both parts June, 1928, through July, 1930; *Architectural Record*, 1928 through 1935; *American Architect*, 1928 through 1935. Price per copy, 35c, or 10c per copy if purchased in groups. The following books are for sale: *Encyclopedia of Architecture, Carpentry and Building*, in eight volumes, \$10.00 for all, plus express charges; *Foundations, Abutments and Footings*; *Structural Members and Connections*; *Reinforced Concrete and Masonry Structures*; *Steel and Timber Structures*, all four by Hool & Kinne, all first editions, \$6.00 for the lot plus express charges.

A. B. Griffith, 840 So. 59th Street, Omaha, Nebraska, has the following magazines for sale: *American Architect*—January 5th and January 20th issues of 1926; *Good Furniture*—January through May, 1921; *PENCIL POINTS* complete for 1922, unbound; *Architecture*, series of measured details, 69 plates, in portfolio; *French Book of Architecture*, plates, in portfolio.

Russell S. Johnston & Andrew Palmieri, Architects, 501 Fifth Avenue, New York, N. Y., have some office space available for an architect or any one connected with allied trades or professions. Phone: MUrray Hill 2-5346-7.

(Continued on page 48, Advertising Section)



A Personal-ized Nairn Linoleum floor in the Witherspoon School, Princeton, N. J. Individual designs like this cost little extra. The bulletin board is Nairn Cork Carpet.*

HERE'S KINDERGARTEN FUN FOR YEARS TO COME— and permanent economy to delight the school board !



- Your school clients will rate *Personal-ized** floors of Nairn Linoleum 100% for modern kindergartens!

The physical well-being of the youngsters is protected by the exceptionally smooth, sanitary surface of the material. There are no cracks or indentations to collect dirt and germs, in fact this linoleum actually has germicidal properties. The danger of splinters is entirely eliminated.

The educational advantages of such a floor are also considerable. A design, such as you see above, is a real aid in "learning while playing"—and the gay colors help establish the pleasant atmosphere so desired in a modern kindergarten!

The school budget is also greatly benefited. Moderate in first cost, a Nairn Linoleum floor takes heavy foot-traffic with hardly a sign of wear. Cleaning and waxing are the only "upkeep" needed.

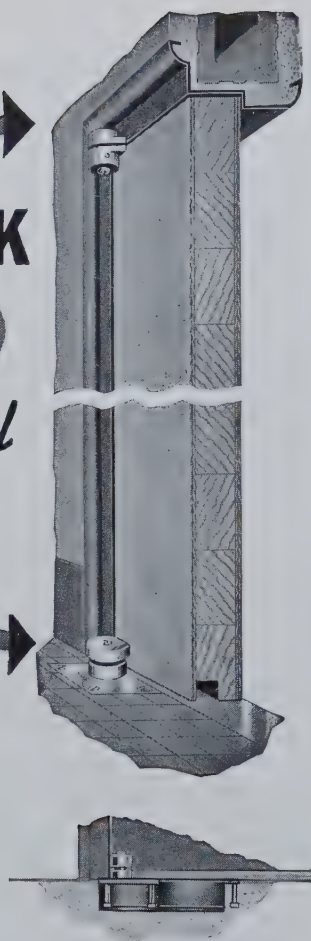
Specify Nairn Linoleum for your school floors. Its economy and unique quietizing qualities make it ideal for all school areas—especially in kindergartens, corridors, auditoriums and offices. When installed by Authorized Contractors, *it is fully guaranteed.*

CONGOLEUM-NAIRN INC., KEARNY, NEW JERSEY

*Trademark Reg. U. S. Pat. Off.

NAIRN
Reg. U. S. Pat. Off.
FLOORS AND WALLS

Specify
UNI-CHECK
 and this
*Is All They'll
 Ever See!*



THE MODERN CHECK THAT
 GAINED NEW FRIENDS BY
 DROPPING OUT OF SIGHT

No Hinges—
 No Unsightly Arms

*Out of
 Sight...*

There is scarcely anything about a UNI-CHECKED door to even hint at the existence of the rugged door closing mechanism concealed at top and bottom. RIXSON UNI-CHECKS for single-acting interior doors, are the modern device that permits architects to give doors the same clean, symmetrical treatment as the rest of the building at no cost premium over exposed type closers.

*and Out
 of Mind*

And that's not all. UNI-CHECKS are built to last—to give gentle but positive closure for long, attention-free periods. There are only 6 moving parts, no complicated adjustments. Can be installed on any interior wood or metal door in any type of floor. Require only 2 9/16" floor depth. Made in 4 capacities.

Get all the facts and a demonstration from your nearest Rixson representative; or, write direct for data sheet.

THE OSCAR C. RIXSON COMPANY
 4458 Carroll Avenue, Chicago, Illinois

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NEW YORK: 2034 Webster Ave. - PHILADELPHIA: 211 Greenwood Ave., Wyncote, (Pa.) - SAN FRANCISCO: 116 New Montgomery St. - LOS ANGELES: 909 Santa Fe Avenue - SEATTLE: 4012 E. 38th Street
 ATLANTA: 152 Nassau St. - NEW ORLEANS: 2630 Jefferson Ave.
 LONDON, ONT., CANADA: Richard-Wilcox Co., Ltd.

RIXSON
Builders' Hardware

(Continued from page 46, Advertising Section)

Anthony T. Criscuolo, 1051 St. Marks Avenue, Brooklyn, N. Y., has for sale two bound volumes of *American Architect and Building News*, January 1879 to August 1880, and July 1880 to December 1881. Condition fair, some illustrations missing.

Robert B. Trivett, jr., 35 Cambridge Street, East Orange, N. J., would like to obtain the following books: *Organizing the Drafting Department*, H. F. Church; *Manual of Office Practice for the Architect*, T. J. Adams; *Law of Architecture and Building* and *Architect's Law Manual*, Blake; *Modern Housing*, Catherine Bauer; *The New Architecture in Mexico*, Esther Born.

FOR RENT: Private office in architect's suite, furnished; service and drafting facilities; also desk room. On 57th Street in New York. Phone: Circle 7-6600.

PERSONALS

JOHN W. BRIGGS, *Architect*, has moved his offices from 73 South Avenue to 240 East Avenue (Little Theater Building), Rochester, N. Y.

Due to the death of Arthur C. Jackson, Architect, 501 Fifth Avenue, New York, N. Y., RUSSELL S. JOHNSTON and ANDREW PALMIERI, *Architects*, are continuing Mr. Jackson's architectural practice at the same address.

L. VERNE LACY and THOMAS H. ATHERTON, *Architects*, have become associated for the practice of architecture, with offices in the Hotel Sterling, Wilkes-Barre, Pa.

ALTON L. CRAFT, *Architect*, has become an active associate of Thiesen & Slingerland, Architects, for the practice of architecture. Offices will be located as formerly at West 244th Street and Waldo Avenue, Riverdale-on-Hudson, New York, N. Y. Thiesen & Slingerland were former associates of Dwight James Baum.

FRANK STEFE, *Designer*, has moved his office to 505 North Michigan Avenue, Chicago, Ill.

CHARLES M. CARRINGTON, *Architect*, has established an office for the practice of architecture at 512 Gulf States Building, Dallas, Texas.

JESSE L. BOWLING, *Architect*, has moved his offices from 37 West 39th Street to 2 West 47th Street, on the 13th floor, New York, N. Y.

NEWTON L. LOCKWOOD, *Architect*, has opened an office for the practice of architecture at 249 Main Street, Bristol, Conn.

FRANCIS deN. SCHROEDER has been appointed Editor of *Interiors* (formerly the *Interior Decorator*), by the Whitney Publishing Company. Mr. Schroeder was for many years an Associate Editor of *Vanity Fair*, *Time* and *Life* magazines.

NEW PUBLICATION. P. H. Sommers, of Jefferson City, Missouri, is editing the newest architect's publication, "News Letter," of the Missouri Association of Architects. This is now a two-page mimeographed leaflet. It is announced in Volume 1, number 1, that members of the Missouri Association are strongly behind the recent A.I.A. affiliation and have increased their dues to cover A.I.A. obligations and to initiate a more active Association program.

Each **EXTRA INCH** is another extra reason...

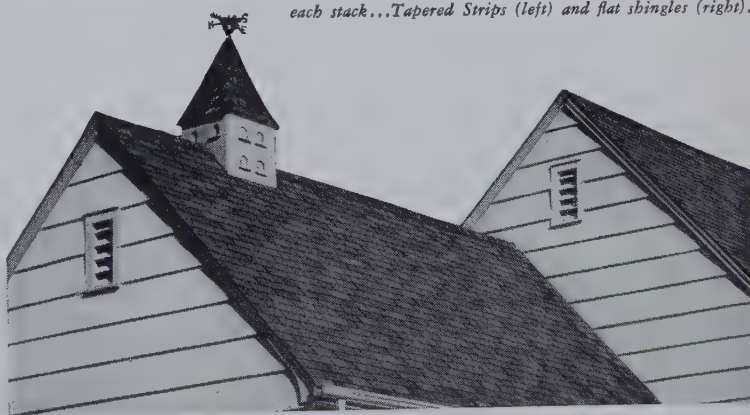
... for specifying roofing of
FLINTKOTE TAPERED STRIPS



Unretouched photograph shows same number of shingles in each stack...Tapered Strips (left) and flat shingles (right).

This actual photograph illustrates those *extra* thick tapered coatings of protective asphalt on every Flintkote Tapered Strip shingle. Added thickness on weather ends—25% to 33% more—insures a longer-lasting roof. A special heavy coating on the underside makes these modern shingles self-sealing, prevents damage from wind or driving rain.

Architects heartily approve the deep shadows cast by these thicker shingle butts. Here, at moderate cost, is the texture and rugged character of expensive roofings. Many colors and blends are available to carry out your decorative plans. These 12" x 36" strips hold down labor costs and speed application. Laid with 5" exposure, three bundles cover a square. Fire-resistance of this popular mineral-surfaced Flintkote shingle is proved by their Class C Underwriters' Label.



Have you received copies of the *latest* catalogs on Flintkote asbestos and asphalt roofings and sidings? Please send for facts about the new structural and decorative insulating board products... and detailed information about Flintkote waterproofings, protective coatings and other specialties for residential and industrial buildings.

The **FLINTKOTE** Company

30 ROCKEFELLER PLAZA, NEW YORK

ATLANTA...BOSTON...CHICAGO HEIGHTS...DETROIT...LOS ANGELES...NEW ORLEANS...WACO...LONDON





MEETS FEDERAL GOVERNMENT SPECIFICATIONS

TT-P-88

To the boys who write or read "specs" TT-P-88 is destined to be as familiar as big league scores are to an ardent baseball fan. For these Federal Government Specifications call for "paint, paste, resin emulsion, interior, light tints and white". ★ Any architect who knows his paints will readily agree that Super Mural-tone is a "natural" for "defense" construction jobs where Speed is the watchword. ★ "SPEED" is Super Mural-tone's middle name. No waiting around for plaster to season. "Super" is ready to go to work even when the walls are still "green". Being on friendly terms with a wide brush, Super Mural-tone just devours wall space . . . which, incidentally, is no small item in cutting costs. "Super" takes more thinner. Goes further. One coat covers and hides on most surfaces. Dries in 40 minutes to a beautiful velvet finish . . . a finish that's famous for its high percentage of light reflection. ★ And "Super" is washable—it more than meets the "wet abrasion" requirements in the Federal Government specifications. ★ For complete information about Super Mural-tone write to the Muralo Company, 572 Richmond Terrace, Staten Island, N. Y. ★ Branches: Atlanta, Boston, Chicago, Los Angeles, San Francisco.

A
MURALO
Product

PUBLICATIONS ON MATERIALS AND EQUIPMENT

of Interest to Architects, Draftsmen and Specification Writers

Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.

THE NEW 20 SMITH-MILLS BOILER. — Set of folders announcing and describing a new line of stoker firing and oil burning heating boilers for use in medium-sized homes, service stations, diners and small store buildings. Specifications, dimensions, ratings, etc. 4 pp. 8½ x 11. The H. B. Smith Co., Inc., Westfield, Mass.

HELPFUL HINTS IN PAINT STYLING. — New booklet giving detailed color schemes for 69 different rooms and showing how the application of paint styling principles will improve the appearance of the home and how color can give each room its own personality. Mural-tone color cards showing 31 positive and pastel tones are included. The Muralo Co., Inc., 572 Richmond Terrace, Staten Island, N. Y.

RICHARDS-WILCOX NO. 268 ROL R-WEDG DOOR HOLDER.—Bulletin describing the construction and operation of a new type of door holder. 8½ x 11. Richards-Wilcox Mfg. Co., Aurora, Ill. *Published by the same firm, "Richards-Wilcox No. 719 Vanishing Door Hanger and Track." Folder with complete descriptive data and detail drawings covering a newly-developed line of hangers and track for hanging lightweight vanishing doors and residential parallel wardrobe doors. 8½ x 11.*

TRUSCON RESIDENTIAL DOUBLE-HUNG STEEL WINDOWS.—Useful reference manual for architects covering a line of residential double-hung steel windows. Specifications, installation details for various types of construction, types and sizes, etc. 16 pp. 8½ x 11. Truscon Steel Co., Youngstown, O.

SISALKRAFT PRODUCTS. — Standard filing size folder prepared especially for architects containing series of data sheets giving informative data and specifications covering Sisalkraft and copper-armored Sisalkraft. Samples of both materials are included. The Sisalkraft Co., 205 West Wacker Drive, Chicago, Ill.

THE SHERWIN-WILLIAMS COLOR GUIDE. — An elaborate volume prepared by Sherwin-Williams is now available to assist home owners in selecting paint colors. This book is designed on the premise that color selection from inch-square chips is often disappointing. Full-page illustrations from color photographs present many possible combinations of paint colors and stains. More than fifty plates are devoted to exteriors while the number of interiors exceeds one hundred. Price \$10.00. Sherwin-Williams Co., Cleveland, Ohio.

1941 NATIONAL RADIATOR CATALOG.—A.I.A. File No. 30-c-4. Valuable reference book for architects and contractors presenting engineering data, ratings and dimensions covering the complete line of National Radiator hand, stoker, oil and gas-fired boilers, radiators, convectors and enclosures. 8½ x 11. 64 pp. The National Radiator Co., Johnstown, Pa.

(Continued on page 52)

How often do you ask yourself:

**WHAT WILL THIS HOUSE BE LIKE
20 YEARS FROM NOW?**

You will find a house Dri-Bilt with Douglas Fir Plywood more durable, more rigid, more comfort giving than the same house built conventionally!

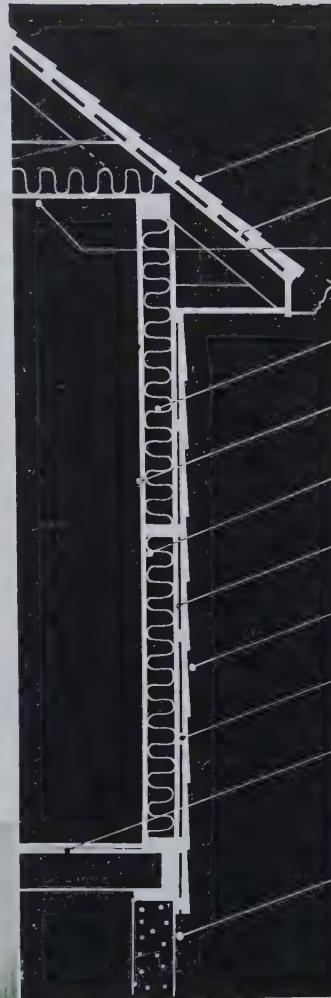
Dri-Bilt with Douglas Fir Plywood houses are superior houses that will still be sound when their mortgages are paid off. Their walls are nearly 6 times as rigid as walls with horizontal board sheathing. Their interior walls are mar-proof and crack-proof, yet receptive to any finish. Dri-Bilt houses are warmer, dust-proof, wind-proof. They sell easily because they can be financed through F.H.A. They are approved by the Uniform Building Code.

NOT DRI-BILT WITH PLYWOOD SHEATHING

Dri-Bilt with Douglas Fir Plywood means better, faster, more durable building construction through the use of this "modern miracle in wood." It means using the proper grades of these big, strong, lightweight panels for concrete forms, sub-flooring, wall and roof sheathing, interior walls and ceilings, built-ins and exterior finish.

The result is a substantial saving in time and labor, and a better house for the same money. Many builders are reducing building time as much as 6 weeks by using the standard Dri-Bilt method, because handling, fitting, cutting and nailing are minimized . . . because there is no waiting for plaster to dry. The DFP Dri-Bilt method enables multiple-unit builders to have standard 4 and 5 room houses ready for occupancy 2 weeks after starting.

Consult Sweet's Catalog or write for free Dri-Bilt Manual; Sweet's Reprint; U. S. Commercial Standard CS45-40; new Finishing Folder. Douglas Fir Plywood Assn., 1500 Tacoma Bldg., Tacoma, Wn.



Finish roofing

5/16" Plyscord sheathing

1/4" Plywall ceiling

Insulation

3/8" Plywall

Asphalt paint vapor barrier

5/16" Plyscord sheathing

EXT-DFPA exterior finish

Furring strip

1/2" Plyscord sub-floor

Concrete formed with 1/2" Plyscord, which is then used for sub-floor.



GLUED PLYWOOD HOUSES RESIST TORNADO!

A 200-mile-an-hour tornado swept through Evansville, Ind., last summer. In the storm's center were 2 rows of new houses built under F.H.A. specifications by Modern Builders, Inc., nationally known contractors. Among them were some Dri-Bilt with Plywood or all-plywood homes, whose construction differed from standard Dri-Bilt construction only in that panels were glued to studding instead of being nailed.

These plywood houses were the only ones the insurance adjusters did not write off as total losses. The cost of rehabilitating the plywood houses was only 10% of their value. \$5 went for re-

pairing damage to shingles; the rest for replacing glass, cleaning out dirt and scrubbing the interior. In the other houses the plaster was knocked off the walls. The plywood interior walls and ceilings needed only washing.

The principal damage to the conventionally built houses was due to their having been blown off their foundations. In the opinion of experts, "the plywood house could have been blown off its foundation with very little damage, due to its extreme rigidity. And had it blown off, it would have remained square and could have been rehabilitated at small expense."

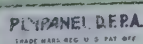


Large homes can also be Dri-Bilt to very good advantage. The interior walls of this handsome Portland, Ore., home are forever mar and crack-proof.

**DOUGLAS FIR
PLYWOOD**
Real Lumber
MADE LARGER, LIGHTER
SPLIT-PROOF
STRONGER



**SPECIFY DOUGLAS FIR PLYWOOD
BY THESE "GRADE TRADE-MARKS"**





**Compare the
FACTS
and you'll see why -**

★ STEEL SASH "MERIT-METER" ★

POINT NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
SWORN BASIC FACTS USED ARE FROM 1940 SWEETS CATALOG																				
MESKER	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	85%
SASH-A	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	50%
SASH-B	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES	NO	NO	NO	NO	NO	NO	YES	NO	30%
SASH-C	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	25%
SASH-D	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES	NO	YES	NO	NO	NO	NO	YES	NO	30%
SASH-E	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES	NO	YES	NO	NO	NO	NO	YES	YES	35%

MESKER
Steel Sash gives you
at least
35% MORE QUALITY
for your money!

Send for your Steel Sash Merit-Meter-and PROOF!

Over a third more quality than its nearest competitor... that's MESKER'S *proved* claim. Check the Steel Sash "Merit Meter" yourself.

It enables you to compare steel window quality, point-by-point. Everyone concerned with steel windows should have a copy of it.

Make the VISUAL-TEST



SEE the difference
FEEL the difference
KNOW the difference

Write today for your Visual Test Kit. It compares the gauge of metal used in weathering bars by Mesker and others. It's Free.

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Without obligation send us: ☐ Ready Reference Steel Sash Merit Meter
☐ Visual Test Kit ☐ Fileworthy Literature on Mesker Steel Sash
☐ Illustrated Steel Sash Price Book ☐ Mesker Dealer Plan

Firm Name ☐ ARCHITECT ☐ BUILDER ☐ DEALER

Address _____
(GIVE STREET ADDRESS OR P.O. BOX NO.)

City _____ State _____

B PP-71

Send for it now!

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 50)

SARCOTHERM WEATHER CONTROL FOR HOT WATER HEATING.—A.I.A. File No. 30-c-25. Bulletin No. 175 giving detailed description of the advantages and operation of the Sarcotherm system of weather control for hot water heating, with special reference to the newly-developed Sarcotherm control valve. Installation details, wiring diagrams, capacities, roughing-in dimensions. 8 pp. 8½ x 11. Sarco Co., Inc., 475 Fifth Ave., New York, N. Y.

THREE BUTTS TO A DOOR.—A genuine Stanley No. 241 hinge enclosed in a jacket on which is colorfully presented all the advantages derived from the use of three butts to a door. The hinge is being offered gratis to architects and builders as part of a nation-wide campaign promoting "Three Butts to a Door." The Stanley Works, New Britain, Conn.

POR-CE-LOK — PORCELAIN ENAMELED ROOFING AND SIDING.—Folder describing the advantages and application of Por-Ce-Lok, an interlocking design of corrugated roofing and siding sheet, coated on all surfaces with special porcelain enamels. 4 pp. 8½ x 11. Porcelain Steels, Inc., Cedar and Ashland Road, Cleveland, O.

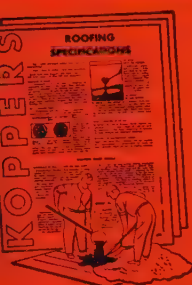
PLUGMOLD.—Bulletin No. 501 describing and illustrating the Plugmold multi-outlet wiring system for use in homes, offices, stores, factories, etc. Installation instructions are included. 4 pp. 8½ x 11. The Wiremold Co., Hartford, Conn.

Published by the same firm, "Wiremold Fluorescent Lighting." Catalog No. FL-3 lists and illustrates the Wiremold line of fluorescent lighting units and Line-O-Lamps. 8 pp. 8½ x 11.

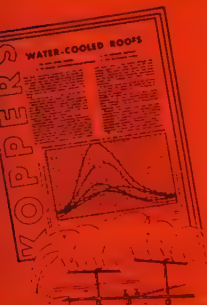
UNDERWATER LIGHTING.—Attractive brochure containing concise yet complete information on a full complement of underwater lighting units for swimming pools, fountains and cascades. Included are specifications for both removable water-cooled types and front and back relamp types, together with installation instructions. 16 pp. 8½ x 11. Russell & Stoll, 125 Barclay St., New York, N. Y.

DU PONT COLOR SELECTOR.—This book is the neatest trick of the month. The Color Selector is divided into four parts. In a pocket on the inside of the front cover are pictures of 3 living rooms, 2 dining rooms, 3 kitchens, 2 bathrooms and 4 house exteriors. These 16 full color pictures are printed on cellophane with the wall areas *transparent*. They represent different styles and by placing them over color sheets it is easy to visualize the effects of various color schemes. The second part of the book consists of 100 sheets about 9" x 12", painted with interior colors, divided with thumb indexes for easy reference into 17 color groups. Any one will be grateful for these large size color samples after attempting to use the little color "chips" ordinarily used as color samples. These du Pont pages are big enough so that you can really see them. The third section of the book is made up of color pages for exterior colors and in the fourth section are trim colors. The exterior color pages are die-cut in such a way that the overlays of the exteriors can be placed on the color pages to show any combination of trim and wall colors. The whole thing is very ingenious and will be a great boon in dealing with that pain-in-the-neck lady client who just can't make up her mind about color schemes. E. I. du Pont de Nemours & Co. (Inc.), Wilmington, Del.

(Continued on page 54)



HOW TO BUILD COAL TAR
PITCH AND FELT ROOFS



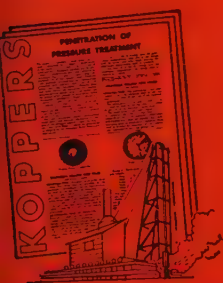
WATER COOLED ROOFS
CONDITION WINDOWLESS
FACTORIES



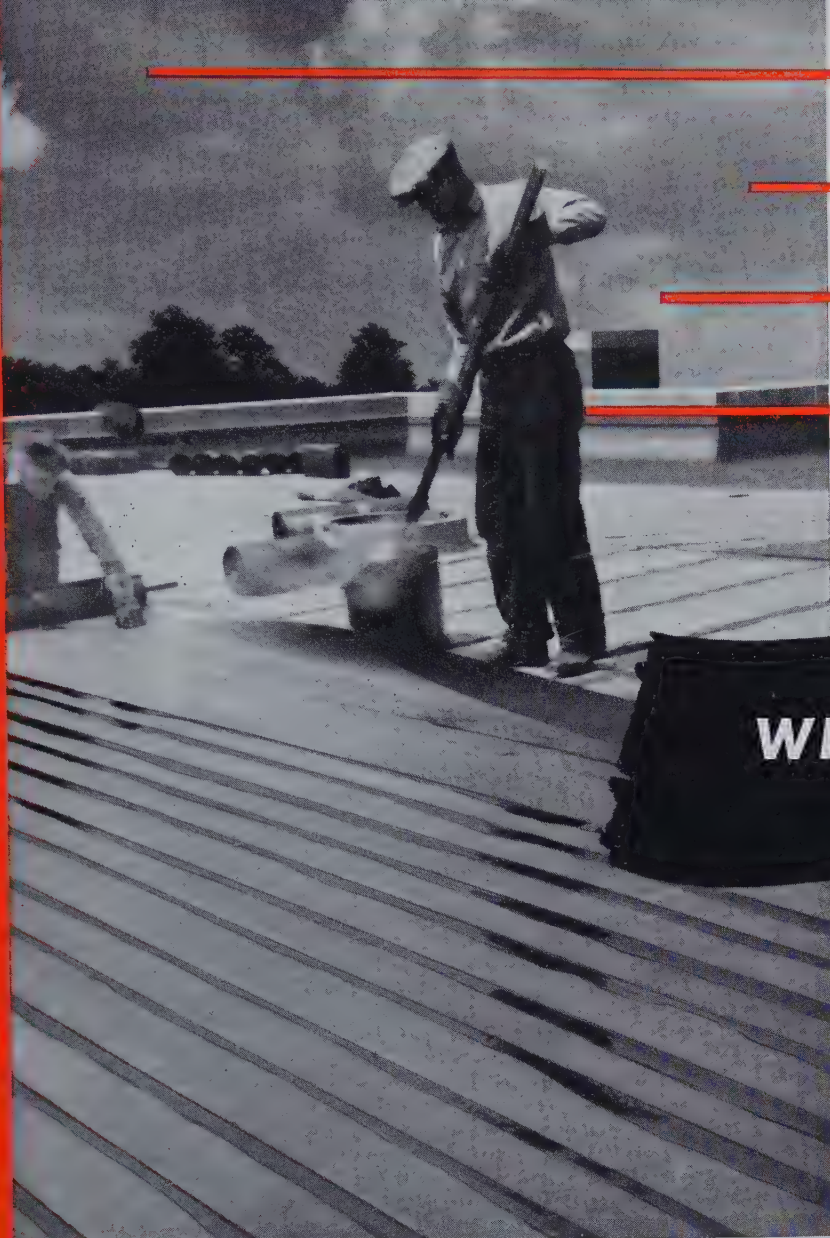
PRESSURE-TREATED TIMBER
CUT CONSTRUCTION COSTS



GET REAL DAMPPROOFING
ACTION FROM PAINT



HOW TO TEST DEPTH OF
PENETRATION IN PRESSURE-
TREATED TIMBER



Some roofs

going on now

will last 20-30-

40 years . . .

and some won't

WILL YOURS?

The past is the best guide to the future. The records from the past show that *one type* of roofing accounts for most of the records for long service life among built-up roofs . . . the records of 20-30 or even 40 years. That one type of roofing is Coal Tar Pitch. Why do Coal Tar Pitch Roofs last? There are three principal reasons:

1. Coal Tar Pitch Lasts because it can resist water. Water lying in low spots on roofs has ruined many a roof . . . but coal tar pitch can resist this so well that water is actually pumped up to Koppers Coal Tar Pitch Roofs to cool the buildings.

2. Coal Tar Pitch Lasts because it can heal small breaks. If vibration, settlement of the building, etc. causes small breaks in your roofing surface, those breaks will heal themselves, if your roof is coal tar pitch.

3. Coal Tar Pitch Lasts because its slag or gravel surface protects it from the sun, hail and wind damage. The heat transmission coefficient of a built-up roof without slag or gravel has been measured at $2\frac{1}{2}$ times that of a slag or gravel surfaced roof.

KOPPERS COAL TAR PITCH ROOFING AND WATERPROOFING

KOPPERS COMPANY

TAR AND CHEMICAL DIVISION

PITTSBURGH, PA.

use **K O P P E R S** products

KOPPERS COMPANY,
1321A Koppers Building, Pittsburgh, Pa.

Please send me copies of these folders:

Your Name _____

Title _____

Firm _____

Address _____

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|---|---|
| <input type="checkbox"/> "Roofing Specifications" | <input type="checkbox"/> "Where to Use Pressure-Treated Timber" |
| <input type="checkbox"/> "Water-cooled Roofs" | <input type="checkbox"/> "How to Measure Depth of Penetration in Pressure-treated Timber" |
| <input type="checkbox"/> "Steep Roofs of Coal Tar Pitch" | <input type="checkbox"/> "Pressure-treated Poles" |
| <input type="checkbox"/> "Roofing Bonds" | <input type="checkbox"/> "Painting of Creosoted Wood" |
| <input type="checkbox"/> "Waterproofing Specifications" | <input type="checkbox"/> "Creosote" |
| <input type="checkbox"/> "Dampproofing Specifications" | <input type="checkbox"/> "Creosote-Coal Tar Solutions" |
| <input type="checkbox"/> "Tar-base Paints" | <input type="checkbox"/> "Disinfectants" |
| <input type="checkbox"/> "Waterproofing and Dampproofing Waterworks" | <input type="checkbox"/> "Paving with Tarmac" |
| <input type="checkbox"/> "Waterproofing and Gasproofing Sewage Disposal Plants" | |

Fill out
and mail



*Penn Fruit Super Market, Philadelphia,
floored with Northern Hard Maple.*

Philadelphia Women Find Pleasant Shopping

... on this warm, resilient, Maple floor

Does a Super-Market need a "Super-floor"? Perhaps not, but it *does* need a floor with a warm welcome for shoppers and a happy answer to management on the cold facts of cost.

Hard Maple is the one floor that stands the wear, yet offers every comfort to shoppers and employees—to eyes and feet and nerves. It is warm and dry and quiet—bright and cheerful, so smooth it's easy to keep clean.

And for economy, Hard Maple heads the list. So simple to finish and clean, inexpensive to maintain, and remarkably long-lived, no comparable floor offers so low a cost per year of service.

Don't build or remodel without checking the facts on this dependable hardwood. Your architect will tell you about trade-marked **MFMA** Maple (*all Northern Hard Maple*), in strips or blocks. See Sweet's, Sec. 11/88.

MAPLE FLOORING MANUFACTURERS ASSOCIATION

1785 McCormick Building, Chicago, Illinois

Write for folder describing finishes which add beauty to, and lower cleaning costs of, old or new Hard Maple floors.



PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 52)

KOPPERS SPRAY POND OR WATER-COOLED ROOFS.—Water-cooled roofs, which help insulate factories, office buildings and homes against the sun's rays by means of evaporation, are the subject of folder Form T-A-2. The folder illustrates and discusses types of water-cooled roofs for structures with or without air conditioning, how much water should be used, construction costs, advantages of coal tar pitch, roof bonds and gives typical specifications, including flashing, for water-cooled roofs. A graph shows the direction and degree of heat flow in and out of various types of roofs. 4 pp. 8½ x 11. Koppers Co., Tar and Chemical Div., Koppers Bldg., Pittsburgh, Pa.

CHURCH SEATS.—Folder describing and illustrating the Church line of toilet seats, including the new Mol-Tex white molded seat. 4 pp. 8½ x 11. C. F. Church Mfg. Co., Holyoke, Mass.

ELJER PLUMBING FIXTURES.—Catalog B. Valuable reference book presenting detailed information covering a complete line of plumbing fixtures, including vitreous china, enameled cast iron and brass goods. Color plates, specifications, dimensions, etc. 102 pp. 9½ x 11½. Eljer Co., Fort City, Pa.

BETTER INTERIORS.—Profusely illustrated book, dealing with the subject of Pittsburgh glass products, including polished plate glass, mirrors, structural glass, glass blocks, tempered plate glass and architectural glass, shows numerous interesting ways in which these products were used in commercial interiors. 20 pp. 8½ x 11. Pittsburgh Plate Glass Co., Grant Bldg., Pittsburgh, Pa.

TIMBERGRAIN ASPHALT SHINGLES.—Folder announcing and describing Timbergrain, a new form of asphalt roofing shingle having a realistic appearance of weathered wood-grain and suitable for modest homes and expensive residences. The Ruberoid Co., 500 Fifth Ave., New York, N. Y.

ZURN CARRIER CATALOG.—A.I.A. File No. 29-c. Catalog No. 39 covers the Zurn line of carriers for supporting wall hung fixtures. It presents in detail the complete line of twenty-five different types of carriers cataloged into five main divisions for ready reference—carriers for water closets, urinals, lavatories, sinks, slabs, etc., and carriers (wall supported) for lavatories. Two pages are devoted to the illustrations, description and presentation of supplementary information on each type of Carrier. Also included is a working blue print of the carrier unit showing installation details, complete installation instructions, description of the unit, architectural specifications, and list prices. Looseleaf. 26 pp. 8½ x 11. J. A. Zurn Mfg. Co., Erie, Pa.

CRITTALL-FEDERAL STEEL CASEMENTS AND INDUSTRIAL WINDOWS.—Valuable new catalog for architects on the subject of steel casements and industrial windows. Included are specifications, descriptive data and many pages of details, types and sizes. 28 pp. 8½ x 11. Crittall-Federal, Inc., Waukesha, Wis.

HOTSTREAM WATER HEATERS AND APPLIANCES.—A.I.A. File No. 29-d-22. Catalog No. 41 describes and illustrates a complete line of water heaters, gas-fired warm air floor furnaces, room heaters, humidifiers and building accessories. Roughing-in charts and dimensions, selection and estimating data, specifications, etc. 40 pp. 8½ x 11. The Hotstream Heater Co., 8007 Grand Ave., Cleveland, O.

(Continued on page 56)

"Honey, you'll have to do your own dishes tonight
... I'm going to be a little late"



THERE are certain things that draw crowds to a restaurant... or to any other commercial establishment. And one of these is a well-designed, attractive interior, made inviting and smart with glass.

In 1941, Pittsburgh Plate Glass Company is sponsoring a comprehensive advertising program to impress this fact on the owners of restaurants, hotels, stores, theatres and other types of businesses. Our advertising urges them to dress up interiors with glass, for better business. And in every advertisement, we recommend that they secure the services of a qualified architect or designer to be sure of an interior that *sells*.

We are hopeful that this will result in more interior design jobs for you. And that when you are called in on such jobs, you will give friendly con-

sideration to Pittsburgh Glass Products in carrying out your plans. Pittsburgh Mirrors, PC Glass Blocks, Carrara Structural Glass, Pittsburgh Plate Glass and the other Pittsburgh Products are all leaders in their fields... and can all be depended upon to

help you create attractive commercial interiors.

We invite you to send the coupon for our new book, containing information about these products and photographic examples of their use in business interiors.

Look what Glass can do to brighten up a restaurant interior. Large flesh tinted mirrors, delicately engraved, have made this Coffee Shoppe of the Farragut Hotel, Knoxville, Tenn. more appealing to the public. Architect: Lyman W. Cleveland.



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PITTSBURGH GLASS

MIRRORS • PLATE GLASS • CARRARA

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Please send me, without obligation, your free, illustrated book "Better Interiors for Better Business... with Glass".

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THAT'S what the management of Kimball Hall, headquarters for fine pianos and organs, says about Whale-Bone-Ite Closet Seats installed in 1917. And that's typical Whale-Bone-Ite performance. In 25 years, we've never heard of one wearing out!

NO SURFACE COATING TO WEAR OFF!

Their super-strong laminated wood core and thick covering of hard, resilient composition give Whale-Bone-Ite Seats such extra long life. They're molded into a solid, permanently rigid unit; have no finish coat to wear off. They don't warp because moisture can't get in. Their all-over smooth surface is easy to clean; repeated disinfecting doesn't harm it.

PREFERRED WHERE USAGE IS HARDEST!

Any wonder Whale-Bone-Ite Seats are used wherever toilet room traffic is heavy—in hospitals, factories, schools, in commercial and public buildings? Owners say they "put an end" to replacement costs.

Whale-Bone-Ite Seats cost no more than ordinary heavy duty types. They fit into every construction job on your boards. Your Sweet's Service shows typical models; a complete catalog will be sent on request.

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WHALE-BONE-ITE CLOSET SEATS

THE BRUNSWICK-BALKE-COLLENDER CO.
625 South Wabash Avenue, Chicago, Illinois
MAKERS OF FINE CLOSET SEATS FOR EVERY INSTALLATION

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 54)

BUILDING PRODUCTS BULLETIN OF THE PRODUCERS' COUNCIL.—Bulletin No. 38 issued by the Producers' Council, Inc., 122 E. 42nd St., New York, from which copies may be secured, contains information on building products and services of the following members:

American Lumber & Treating Co., Chicago, Ill. Describing Wolmanized Lumber, a clean, odorless, paintable, non-corrosive treated lumber, impregnated by the vacuum-pressure process for protection against decay and termites.

Bastian-Morley Co., Inc., Premier Heater Div., LaPorte, Ind. Describing the Mini-Miser feature of the Crane Superior gas water heater, a new principle of gas water heater construction whereby air for combustion is taken in from the top of the heater, instead of through the bottom.

Bell & Gossett Co., Chicago, Ill. Presenting the B & G Monoflo system, an automatically controlled, forced hot water heating system with year round domestic hot water supply.

Carrier Corporation, Syracuse, N. Y. Descriptive and specification data covering types 39Q Carrier Weathermakers for use in stores, restaurants, offices and commercial buildings.

Chamberlin Metal Weather Strip Co., Detroit, Mich. Presenting a new safety detention screen to take the place of iron bars in hospitals, asylums and psychiatric institutions.

Crane Co., Chicago, Ill. Announcing availability of complete selection of matched sets in Crane bathroom line.

General Electric Co., Schenectady, N. Y. Announcing and describing the new GE Triclod induction motor for industrial applications.

The International Nickel Co., Inc., New York, N. Y. Information covering Monel, a strong, corrosion-resistant metal with widespread architectural uses.

Johns-Manville, New York, N. Y. Presenting perforated asbestos felt, a newly-improved roofing felt. Modern Kitchen Bureau, 420 Lexington Ave., New York, N. Y. Featuring a newly-published book containing helpful information on modern kitchen planning.

National Fireproofing Corp., Pittsburgh, Pa. Describing Natco Dri-Speedwall tile for complete exterior and interior walls.

The Peelle Co., Brooklyn, N. Y. Service sheet No. 41, providing Peelle freight elevator door space requirements, construction details and specifications.

Pittsburgh Plate Glass Co., Pittsburgh, Pa. Announcing the Pittsburgh Sandaire process, a new method of sandblasting glass which makes possible the creation of intricate glass shapes and designs all in one piece. Pullman Mfg. Corp., Rochester, N. Y. Describing the Pullman unit sash balance, a mechanical device for the counter-balancing of double-hung windows.

Richmond Screw Anchor Co., Inc., Brooklyn, N. Y. Presenting the Challenger line of Richmond column clamps for concrete columns.

Sedgwick Machine Works, New York, N. Y. Featuring the Sedgwick line of electric sidewalk elevators for stores, restaurants, hotels, institutions and factories.

The Stanley Works, New Britain, Conn. Announcing a new set of "Swing-Up" garage hardware.

(Continued on page 58)

KOOLSHADE*

SAVED US A COOL \$4,000 ON OUR AIR CONDITIONING

... says
Plaza
Hotel
Owner



The Plaza Hotel, Corpus Christi, Texas . . . All guest room windows on sun exposures equipped with KOOLSHADE Sun Screen.

When it was decided to air condition the Plaza Hotel guest room floors, the engineers recommended that the job should be figured two ways: with inside Venetian Blinds and with KOOLSHADE Sun Screen.

"The result," stated Mr. Jack White, owner of this and other leading Texas hotels, "was just like finding \$4,000, for the enormous reduction in sun load by KOOLSHADE enabled us to save \$4,000 on the equipment installation, compared with Venetian Blinds. And, according to conservative calculations, our operating expenses will be reduced by \$45 per month. Other factors considered in favor of KOOLSHADE were: positive and dependable automatic operation; long life and practically negligible maintenance cost; fire safety; and—very important to us—relief from fading of draperies, rugs and furniture in the rooms."

• There are KOOLSHADE Sun Screen Distributors in all principal cities, with competent representatives ready to counsel with you on problems of application, framing and installation. (In Eastern Canada, distributed by Creswell-Pomeroy, Ltd., Montreal.)

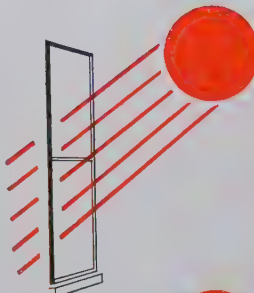
Ingersoll **KOOLSHADE**
SUN SCREEN

"It's Cooler in the Shade."

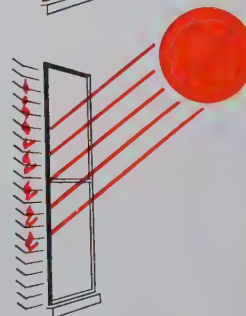
*Trade Mark . . . Property of Ingersoll Steel & Disc Division, Borg-Warner Corporation

COMPARATIVE FIGURES FOR TYPICAL FLOOR, PLAZA HOTEL

WITH
BARE
WINDOW,
SOLAR LOAD
equivalent to
4.51 TONS
per floor



WITH
VENETIAN
BLINDS,
SOLAR LOAD
equivalent to
2.79 TONS
per floor



WITH
KOOLSHADE
SUN SCREEN,
SOLAR LOAD
equivalent to
1.07 TONS
per floor



The above data refers to typical Plaza Hotel floors having 306 sq. ft. of glass area on the East exposure—at 8 A.M.

Ingersoll Steel & Disc Division
Borg-Warner Corporation, Dept. K6
310 So. Michigan Ave., Chicago, Illinois.

Please send your SUN HEAT DEMONSTRATION KIT (without charge) and also complete KOOLSHADE Sun Screen literature.

Name

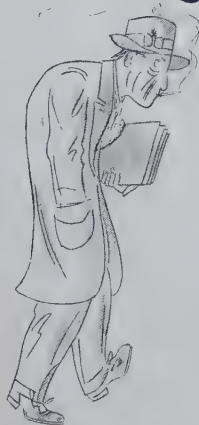
Firm

Address

City State

SOME CALL IT

"DRAFTSMAN'S DROOP"



you know that "old feeling" after a hard day over the board . . . backache, dog-tired and listless . . .

WE CALL IT

"unnecessary"!

● Our own draftsmen have been using "Hallowell" Steel Stools for a number of years, and, we know how much it contributes to good health and good work.

The spring Posture Back gives to the slightest movement, yet backs you up with solid support. Swivel seat gives full freedom of movement. Full welded steel construction is permanently rigid—so different from riveted joints . . . and the dished wooden seat and back is form-fitted, comfortable.

It's a good investment . . . Better work—and more of it . . . Freedom from fatigue.



Dished wooden seat, 14½" dia.; Heights 17" to 21", 22" to 26", 27" to 31", 32" to 36" (4" screw adjustment); Spring posture-back, adjustable; Hinged back rest. Welded throughout. Finish: rich olive green enamel.

Fig. 1266 Pat. App. For

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PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 56)

R C A COORDINATING SYSTEM.—Bulletin discussing the advantages of R C A loudspeaking communication systems for use in industrial and manufacturing plants. Profusely illustrated. 12 pp. 8½ x 11. R C A Mfg. Co., Inc., Industrial Engineering Div., Camden, N. J.

FENESTRA RESIDENCE STEEL CASEMENTS.—A.I.A. File No. 16-e-1. Reference manual for architects covering the Fenestra line of residence steel casements. Included are specifications, types and sizes, full-size sections, installation details, etc. 28 pp. 8½ x 11. Detroit Steel Products Co., 2250 East Grand Blvd., Detroit, Mich.

AUSTRAL GRIPTITE ALL-METAL BLACKBOARD ASSEMBLY.—A.I.A. File No. 35-b-13. Catalog describing the construction and advantages of a line of all-metal blackboard and display board assemblies. Specifications, detail drawings, installation photographs, etc. 12 pp. 8½ x 11. Austral Sales Corp., 101 Park Ave., New York, N. Y.

KLIEGL STAGE LIGHTING EQUIPMENT. — Two new folders, concise, factual and timely, give detailed information on new developments in lighting equipment, and how to light stage presentations, auditoriums and theatres. Bulletin No. 44 features permanent equipment; No. 46 covers portable equipment and supplies. 8½ x 11. Kliegl Bros., 321 W. 50th St., New York, N. Y.

AUDITORIUM AIR CONDITIONING SYSTEMS.—Bulletin No. 12 presents brief descriptions accompanied by diagrams of several of the more important patented auditorium air conditioning systems of the Auditorium Conditioning Corp. 12 pp. Auditorium Conditioning Corp., 17 E. 42nd St., New York, N. Y.

MANUFACTURERS' DATA WANTED

JOHN Y. SLOAN, *Architect*, 757 Crescent Avenue, Buffalo, New York. (All data and samples, and data for complete A.I.A. file.)

CHARLES M. CARRINGTON, *Architect*, 512 Gulf States Building, Dallas, Texas.

JESSE L. BOWLING, *Architect*, 2 West 47th Street, New York, N. Y. Manufacturers—Please note this change of address for future mailings.

EARL L. MATHES, *Architect*, 185 West Oakridge Park, Metairie, La. (Data for complete A.I.A. file.)

M. CAPOBIANCO, *Architect*, 700 St. Albans Street, Philadelphia, Pa. (Data for complete A.I.A. file.)

EDWARD HESS, *Designer and Specification Writer*, 1260 Winnemac Avenue, Chicago, Ill. (Samples, and data for complete A.I.A. file.)

VINCENT LANERI, *Draftsman*, 1830 Ocean Parkway, Brooklyn, N. Y. (Data for complete A.I.A. file.)

FRANCIS MURPHY, *Draftsman*, 244 Main Street, Massena, N. Y.

INDUSTRIAL DESIGN DEPARTMENT, New Bedford Vocational School, 415 Ash Street, New Bedford, Mass. (Data on architectural supplies and plastics for A.I.A. file.)

CARL ELLIOT KANE, *Student*, 28 Bassett Road, Brockton, Mass. (All data as well as data for complete A.I.A. file.)

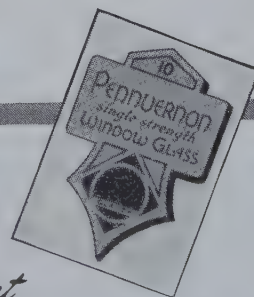


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● Pennvernon Window Glass is clear. It is brilliantly finished on both sides of the sheet. For a sheet glass, it is unusually free from distorting defects. It affords good vision. And its uniformly high quality is reflected in the fact that more architects are specifying Pennvernon today than ever before. More contractors are using it. And more dealers are selling more of it. Pennvernon is readily available the country over, through our many branches and thousands of dealers. Pittsburgh Plate Glass Company, Grant Building, Pittsburgh, Pa.

PENNVERNON WINDOW GLASS
PITTSBURGH PLATE GLASS COMPANY

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POSITION OPEN

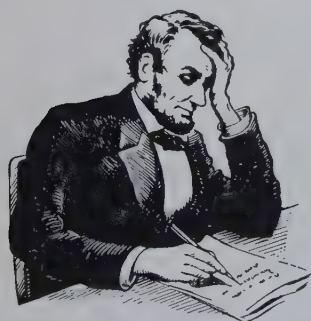
WANTED: Experienced senior architectural draftsman who has the ability to prepare complete working drawings for a school building and other projects. Applicants send specimens of draftsmanship, an outline of experience and character references. R. V. Arnold, architect, Bristol, Va.-Tenn.

POSITIONS WANTED

LANDSCAPE ARCHITECTURAL student (fourth year) at Penn State desires summer experience with Landscape Architectural office. Rendering and drafting ability. Arthur Edwin Bye, Jr., Holicon, Pa.

ARCHITECTURAL DRAFTSMAN would like to make change to Washington, D. C., or thereabouts. Fair education, mill and residence detailer, little experience at Institutional and commercial work. Age 28, married. Box No. 600.

ARCHITECTURAL STUDENT, 11 months' experience. Albert Kornberg, 2157 Holland Ave., Bronx, N. Y.



WINNER

Techno-TONE'S

Ancestor wrote the

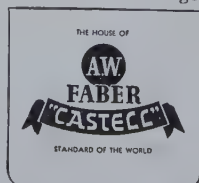
Gettysburg Address!

WINNER Techno-TONE is a drawing pencil with a heritage . . . descended from an illustrious line of A. W. Faber pencils.

An A. W. Faber pencil in the hand of Abraham Lincoln inscribed the immortal words of the Gettysburg Address.

WINNER Techno-TONE embodies all the traditional qualities you expect to find in an A. W. Faber pencil . . . silky smoothness, complete absence of grit, rigid uniformity of grading and exceptional tensile strength to resist breakage.

True, it costs two or three pennies more—but real craftsmen are happy to pay this slight premium for America's finest, America's highest-priced drawing pencil.



Polished rich green.
Packed in metal box. 2 for 25c

WINNER Techno-TONE

17 Degrees—6B to 9H

"It has the A. W. FABER name on it."

A.W. FABER Inc. NEWARK N. J.

IMPORTANT NOTICE TO ARCHITECTURAL DRAFTSMEN

Due to the increased demand for architectural men it is suggested that all architectural draftsmen in the Metropolitan area, New York, who are seeking employment, file their applications with Mrs. Nelson, Architects' Committee, 115 East 40th St., New York, N. Y. If you have previously filed your application, come in and bring it up to date.

DRAFTSMAN-ARCHITECT — long experience. Some outside experience. Industrial buildings, churches, schools. Might work in capacity of expediter. Architect's office, New York City or vicinity. Charles E. Columbus, 433 Hoboken Ave., Jersey City, N. J.

JUNIOR DRAFTSMAN wants position with architectural firm. Complete knowledge of rendering, perspective and working drawings; good letterer. Walter P. Globis, 10020 Aberdeen Street, Chicago, Ill.

INDUSTRIAL DESIGNER and architectural draftsman, 33, graduate of Chicago Technical College, 15 years' experience covering all phases of design and engineering details in building work. Box No. 601.

SCALE MODEL BUILDER (wood or plaster) desires change. Experienced dioramas or perspective models, ornamental modeling; figures, etc. Drafting and designing. John Steinichen, Rt. 1, Box 253, Atlanta, Ga.

JUNIOR ARCHITECTURAL DRAFTSMAN wants affiliation with reliable firm, neat and capable, good ink drawings, fairly well acquainted with residential work, age 24. Will go anywhere. Melbourne B. Jones, 1005 Jackson St., Roanoke Rapids, N. C.

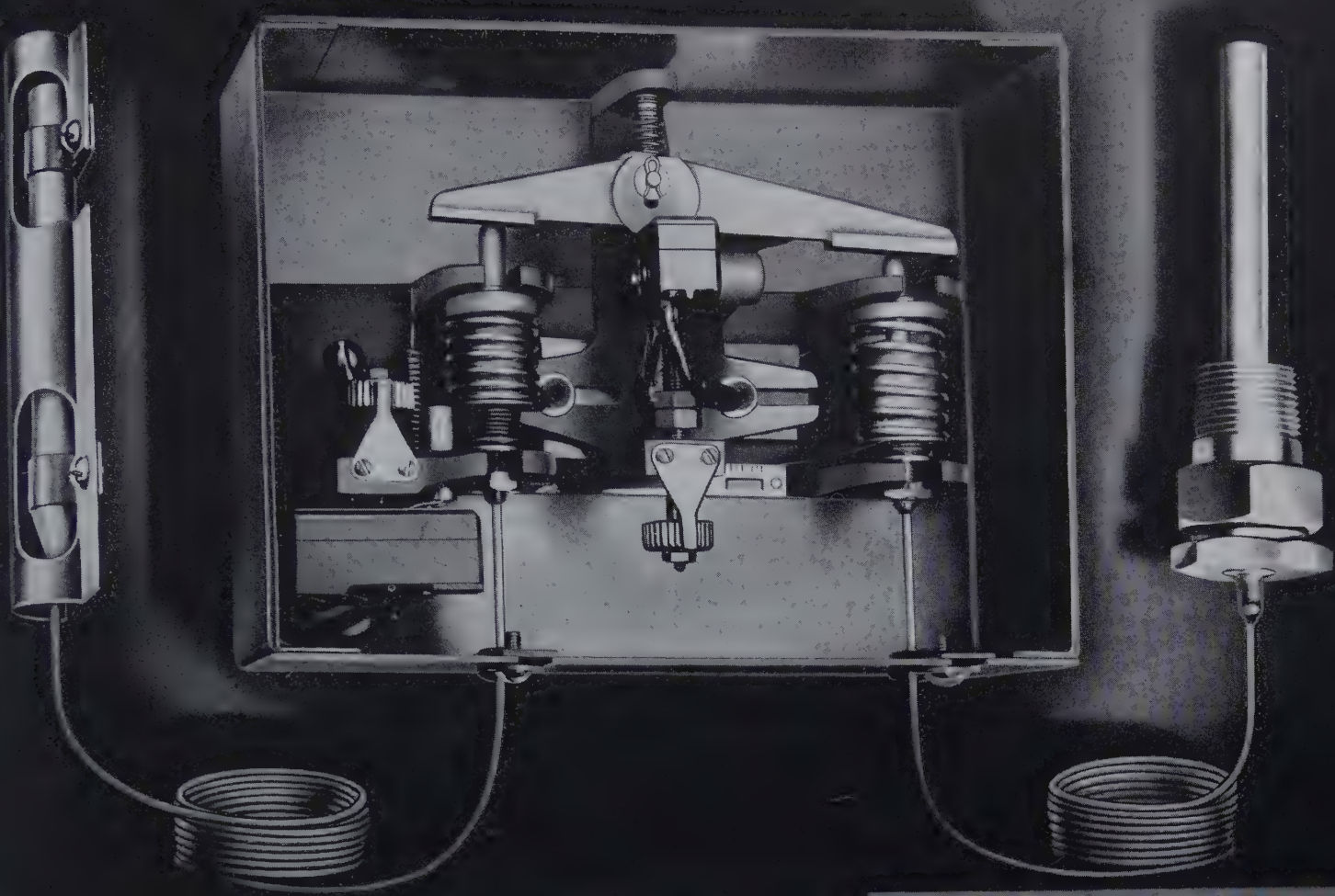
DRAFTSMAN: Young man desires position in architect's office. Two and one-half years' experience on board, small homes, apartments. Evening School, also I.C.S. Course. New York preferred. Box No. 602.

STORE FIXTURE DESIGNER, 27, five years' experience, any type store. Selling, layouts, construction. Go anywhere. John C. Taylor, Box 579, Asheboro, N. C.

JUNIOR DRAFTSMAN desires position with architect or contractor. Completed two years at Pratt Institute. Joseph Apatsky, 32 Jackson St., New York, N. Y.

EXPERIENCED TYPIST, experienced, neat and accurate, would like manuscripts, specifications or the like to do at home. New York City or vicinity. Box No. 603.

LANDSCAPE ARCHITECTS SOUGHT FOR GOVERNMENT SERVICE. — Landscape architects are needed now in connection with national defense housing and other Government projects. The U. S. Civil Service Commission has just announced an examination to fill these positions paying from \$2,000 to \$5,600 a year. Applications must be filed with the Commission's Washington office not later than June 26, 1941. Applicants for junior landscape architect positions must have completed either a 4-year college course with major study in landscape architecture, engineering or design; or a 4-year college course and in addition, the work leading to an advanced degree in landscape architecture, design, or engineering, or city planning. Under certain conditions, applications will be accepted from senior or graduate students. Persons who are interested are urged to apply for further information and application forms to any first- or second-class post office, or to the Civil Service Commission in Washington, D. C.



THE MIRACLE of continuously circulated heat

The history of heating engineering records a constant striving to reach an ideal—*uniform indoor temperature regardless of weather variations.*

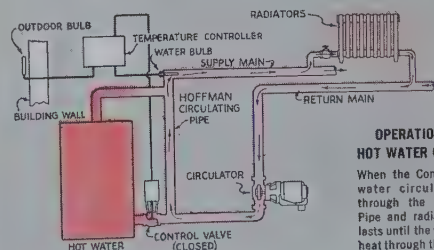
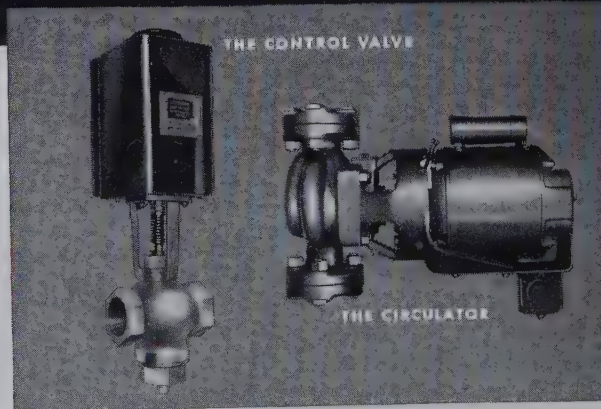
Today, in Hoffman Hot Water Controlled Heat, a miracle of modern engineering achieves this end. Miraculous, because without the slightest human attention this system literally *anticipates the weather* and governs the heat supply accordingly.

Hot water is continuously circulated to the radiators by means of a small electric pump—a basic operating feature which puts the heating medium under constant control. Pictured above is the Hoffman Control, the “mechanical brain” which regulates the temperature of the circulating water. An outside control, in conjunction with a bulb in the hot water line, *automatically* selects the water temperature necessary to keep the house at any predetermined degree. With delicate precision, it smoothly *varies the water temperature* according to the minute-by-minute need for heat. So precisely that over and under-heating is completely eliminated!

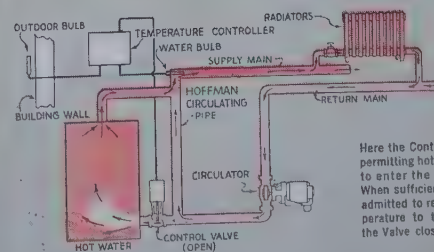
With this system of continuous circulation, smaller radiators can be used. Smaller radiators are more easily concealed and the saving in radiation will, in many cases, pay the entire cost of the controls.

This system of balanced, uniform heat is not confined to residential applications. It has an astonishing record of success in apartments, factories and commercial buildings . . . *yet does not call for a premium price!* Any hot water boiler, if fired with oil, gas or a stoker, can be equipped with Hoffman Controls.

An illustrated booklet is available upon request. Write to the Hoffman Specialty Company, Inc., Dept. PP-6, Waterbury, Conn.



**OPERATION OF HOFFMAN
HOT WATER CONTROLLED HEAT**
When the Control Valve is closed, water circulates continuously through the Hoffman Circulating Pipe and radiators. This condition lasts until the water has lost enough heat through the radiators to require an additional amount from the boiler.



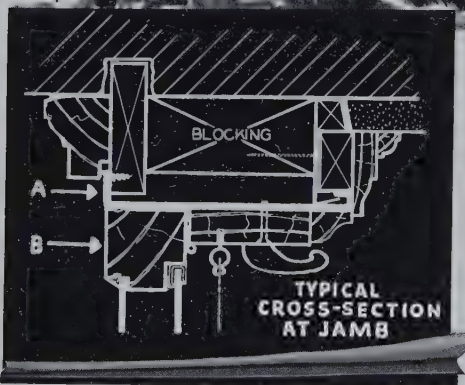
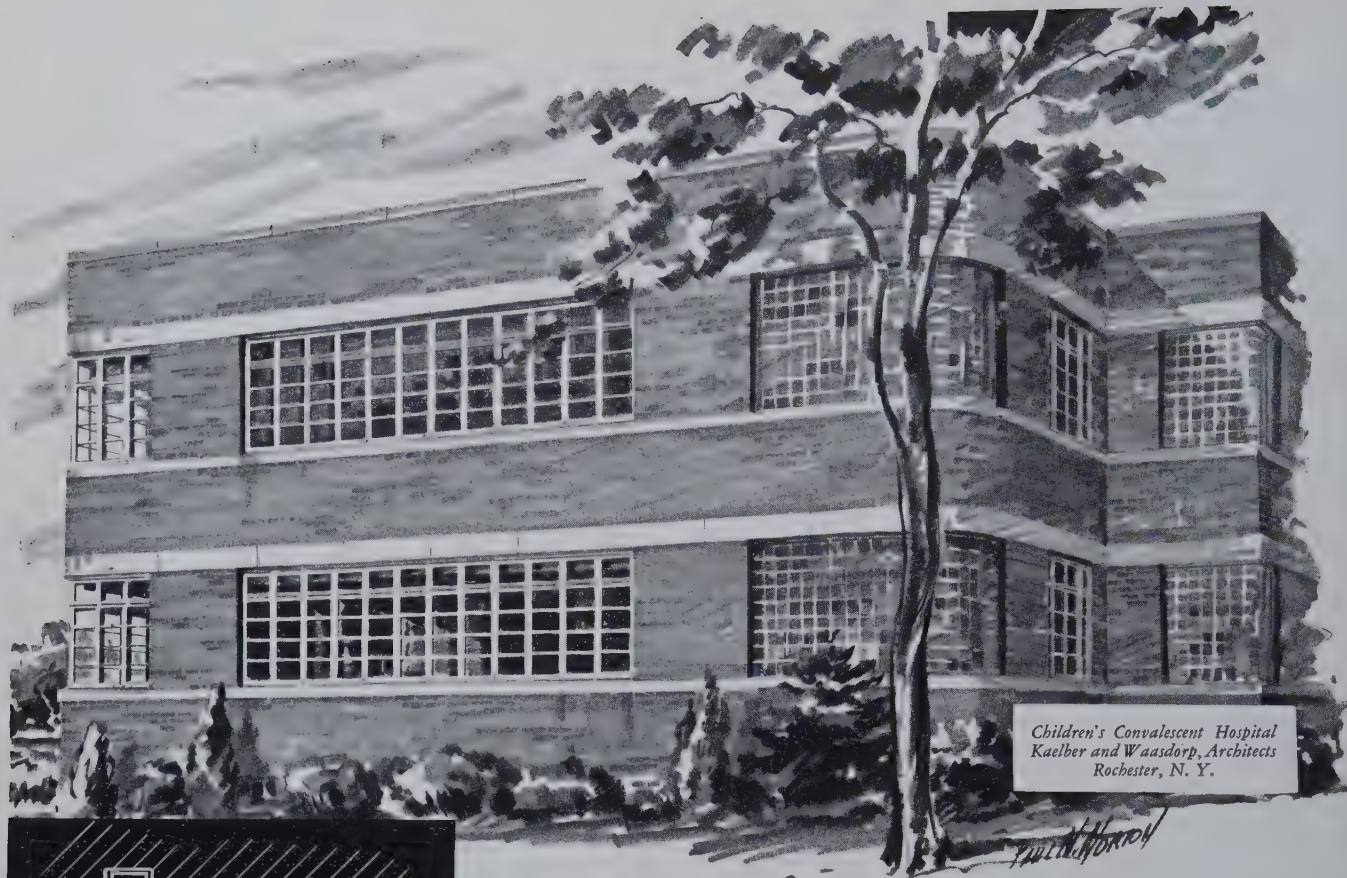
Here the Control Valve has opened, permitting hot water from the boiler to enter the circulating stream. When sufficient hot water has been admitted to restore the proper temperature to the circulating water, the Valve closes.

HOFFMAN

Hot Water CONTROLLED HEAT

Median of Comfort
and Fuel

NEW APPROACH TO AN OLD PROBLEM



A—Note how heavy welded steel frame is full jamb width to assure rigidity of casement unit.
B—Sash constructed of the best wood money can buy—*genuine* White Pine. Toxic dipped. Full 1 3/4" square side stiles with extra strong mortise and tenon joints.

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You get both in

Pella CASEMENT UNITS

STEEL INNER FRAMES—16-gauge, rust-proofed galvanized (zinc impregnated) welded steel frame. Full jamb width 5 5/16". Lined with clear White Pine (other woods if desired). Sash are *genuine* White Pine. Weather-stripped throughout.

ROLSCREENS—Built-in. Roll up and down like a window shade. Once in place always in place. No putting up—no taking down. Made of special Alumina wire-cloth. Preserve the beauty of lovely windows. 10 year guarantee.

DUAL GLAZING—Consists of single removable panel of Libbey-Owens-Ford DSA glass, set into a rubber-lined, cadmium plated steel frame, practically invisible. Insulates against winter cold and summer heat.

STOCK SIZES—Ventilating units can be specified 1, 2 or 3 lights wide and up to 5 lights high to set singly or in combination with other fixed or ventilating units. Any or all muntin bars may be omitted at no extra charge. Corner or angular mullions of any degree for bays also available.

Pella CASEMENTS

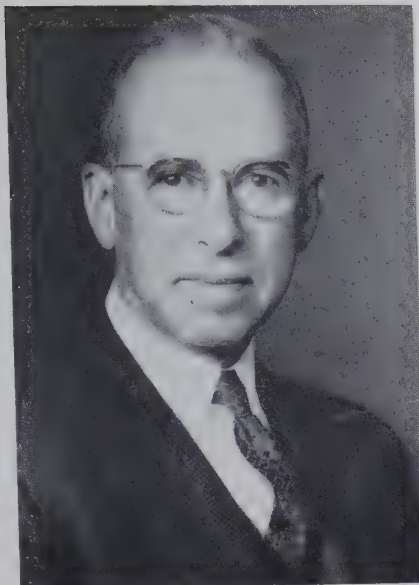
ROLSCREENS • VENETIAN BLINDS

A.I.A. HONORS 14

Announcement of the election of fourteen Fellows to the American Institute of Architects for distinguished achievement in architecture was one of the closing events of the A.I.A. convention last month.

"Our profession has been well served by these men," said the announcement by the Committee on Awards and Scholarships, of which *Edwin Bergstrom*, Los Angeles, retiring President of the Institute, is Chairman. "Their contribution to design, research, literature, education, and public service fulfill the exacting criteria of a vital architecture."

Those advanced to fellowship were: *Gordon Allen*, Boston, Mass.; *Raymond J. Ashton*, Salt Lake City, Utah; *Leonard H. Bailey*, Oklahoma City, Okla.; *Frank N. Emerson*, Peoria, Ill.; *Robert K. Fuller*, Denver, Colo.; *Albert Harkness*, Providence, R. I.; *Lewis P. Hobart*, San Francisco, Calif.; *H. Roy Kelley*, Los Angeles, Calif.; *Roy F. Larson*, Philadelphia, Pa.; *Arthur Lamont Loveless*, Seattle, Wash.; *Loring H. Provine*, Urbana, Ill.; *Winsor Soule*, Santa Barbara; *George Spearl*, St. Louis; and *Ernest Wilby*, Canada.



Richmond H. Shreve, New York Architect, identified with defense construction and with the design and execution of many notable buildings including the Empire State, was elected president of the American Institute of Architects at the final session of the recent convention in Yosemite Valley, California. He succeeds Edwin Bergstrom of Los Angeles.

BOSTON NOTES

According to State House reporters, the architects' registration bill appeared briefly on May 12 while in transit to the Committee on Ways and Means. This may parallel the slight change in location common to the human species several days before a blessed event. Those who beheld the phenomenon said our unborn bill had a recommendation for passage hung round its neck. For sure it was finally sweetened to almost everyone's taste, including realtor and three-deckerite, though rumor has it that some undying opposition remains in proprietary architectural quarters.

Most epochal event of the month was the death of Boston's *Evening Transcript*, from natural causes at the age of 111 years. Every good New England architect from *Charles Bulfinch* on had taken this newspaper, excepting *Pete Richmond*, who reads the *C. S. Monitor*. But even he had to get reports from his *Transcript*-reading friends to find out who had died 'round town. This writer and wife were wholly incapable of selecting a substitute paper after the demise; it seemed indecent and very

(Continued on page 64)

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ARTGUM

BRAND
ERASER & CLEANER

(Continued from page 63)

discouraging. Finally one's ten-year-old daughter took over the job and plumped for the *Globe*, because of Superman—which seemed as good a reason as any and that was that.

A footnote to the fact of a Defense Housing commission awarded *Hugh Stubbins, Jr.*, would say that the drawings were completed on schedule through a jag of night work and perfect co-operation from *Cleverdon, Varney & Pike*, Consulting Engineers — until on this, the 13th of May, we happened to read the *Boston Globe* bulletin board, which said in

part, "Weymouth Housing Project Abandoned." The boys in the back room immediately envisaged a number of possible situations, but the fact remained that the Uncle had not had the courage of his convictions, and wasted time and money.

Elsewhere Housing pursues a quiet course and you never hear about it except when some hardy old settler in a condemned area stands off the building wreckers with a shotgun.

On May 6 the Boston Society of Architects held an annual prize-giving spree at its monthly dinner. *Richard J. Shaw* was formally pre-

sented with the Harleston Parker medal, by *Mayor Tobin* (applause).

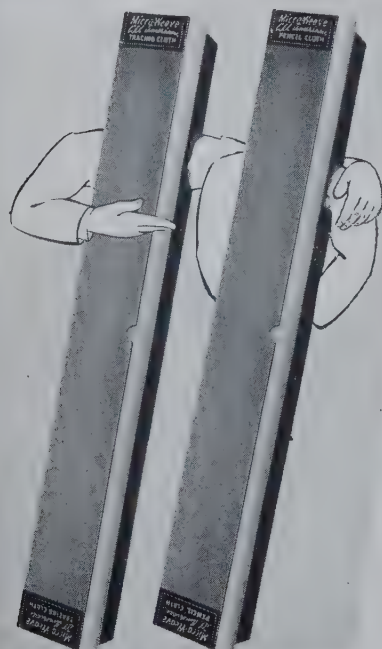
Niels Larsen announced this year's Rotch winner as *J. Martin Rosse* of M.I.T.; and *Eliel Saarinen* gave the critique. Here 'twere of moment to say that the runner-up in this contest to design a school of architecture was *Walter W. Wilkman*, who stemmed from the Boston Architectural Club, though now at M.I.T.

This year's Boston Society of Architects' prize money went to help the war work of the *Royal Institute of British Architects*, but their Week-end Prize was run off and divided between two contestants, Tech's *Walter H. Brown* and Harvard's *Albert W. Arneson*. The Institute omitted its Chamberlain Prize but the five F. W. Chandler prizes went in this order to *William H. Brown*, *William B. Du Bois*, *William H. Schubert*, *Walter W. Wilkman*, and *Miss Anne E. Humphrey*. How Anne got a prize without a "W" in her name surpasses all understanding.

The only wanderers heard from in recent months have been *Al Kluwer*, who spoke of *Ralph Bowers'* wedding in the vicinage of Williamsburg, and *Louis F. Pacheco*, sometime *Cantabrigian*. The Board of Health having cleaned my desk I cannot find the details of the Bowers nuptials which, if memory serves, were both dressy and well-appointed, Planter Bowers resting his long, black seegar on the altar until the parson had spliced him and the new firm of Bowers and Bowers went into polite osculation. If Mnemosyne has tricked me, may I be forgiven? Wanderer Pacheco is one of the lads who doesn't believe in messing round in a vacuum when there's milk and honey beyond the horizon. Going originally to Atlanta on a housing project he finds himself happy, three years later, in Raleigh.

Architectural draftsmen are not extensively sought after by local architects but when the masters want one they are scarce as hens' teeth.

LEON KEACH



Meet my brother, "Pencil."

If we have worked together, you and I, then you will take my word for it that "Pencil" is, in his way, just as good a tracing cloth as I am. I don't ask you to take my word for it. All I want is to have you give "Pencil" a fair trial. If you don't know me, then all I can say is we ought to get acquainted. Just write for some samples or ask your dealer. First there was Micro-Weave Tracing Cloth — that was me, "Ink". Now there are two of us — "Ink" and "Pencil" — both Micro-Weave — and good even though we say so ourselves.

Send for generous size samples or ask your dealer.

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SCULPTURE SHOW

Small sculpture bas-reliefs and photographs were exhibited last month at the Architectural League, New York, by the *National Sculpture Society*. The photographs included in the show are to be sent on a tour throughout the United States and possibly to South America.

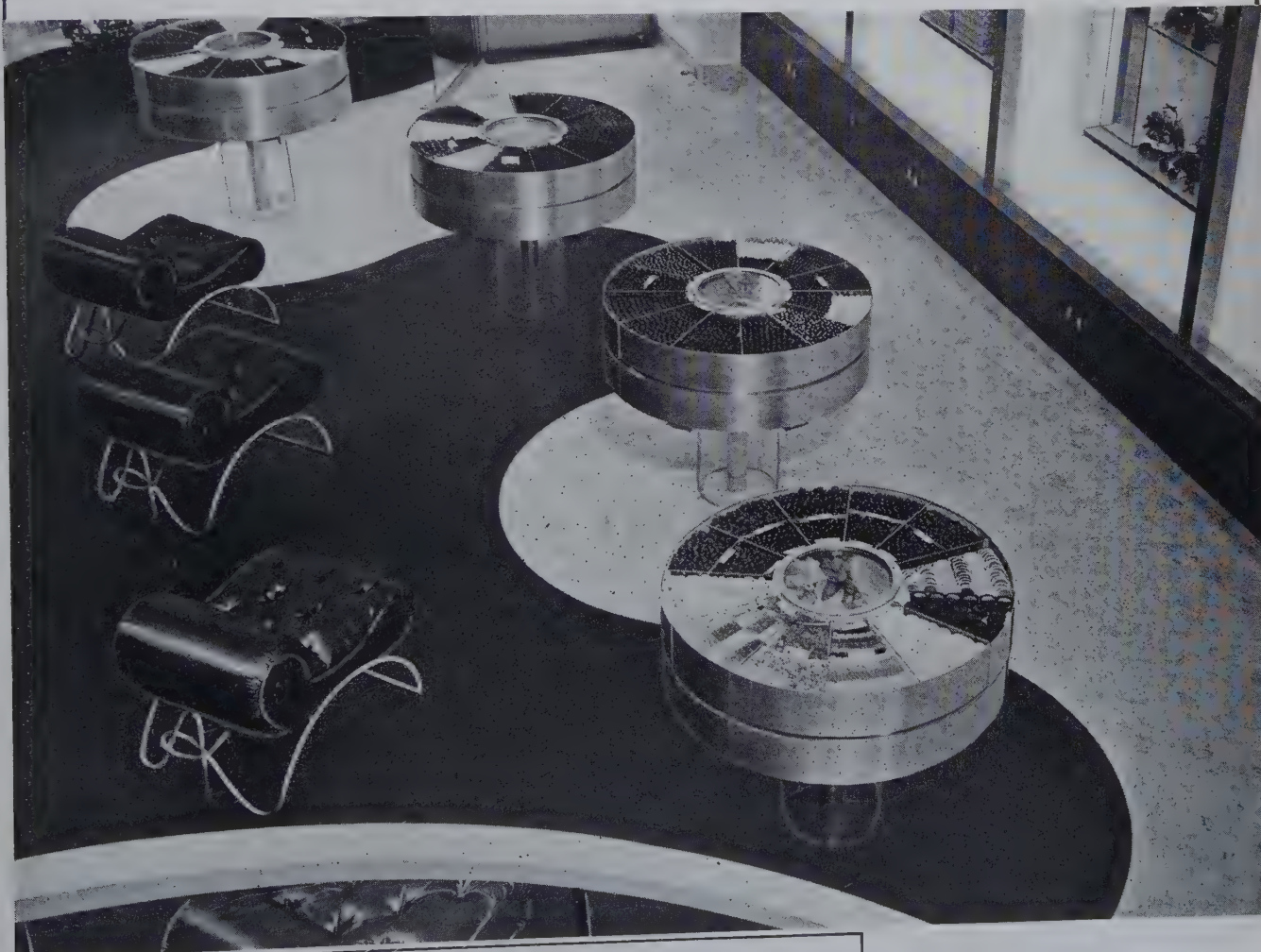
In stores, let the floor help you DISPLAY THE DISPLAYS

YOU'LL find a double-barrelled store-design idea in this striking picture of Fifth Avenue's Altman & Kuhne Candy Shop. First, note how the new approach to display-fixture design effectively presents the merchandise. Second, note how the shrewdly-conceived linoleum floor design *displays the displays*.

Here is a good example of the way Armstrong's Linoleum is being used to play a definite part in selling. Because you have more than 200 colors and patterns to choose from . . . and because the

assistance of Armstrong's own specialists in floor design is at your disposal . . . you'll find it easy and economical to adapt this material to the needs of your commercial clients.

If you want to see some of the new things that are being done with linoleum in stores and other nonresidential buildings, a copy of our color-printed brochure *Better Floors for Better Business* is yours for the asking. Write now to Armstrong Cork Company, Floor Division, 1213 State St., Lancaster, Pennsylvania.



ARMSTRONG'S FLOORS LINOLEUM

Rubber Tile - Linotile (Oil-Bonded) - Asphalt Tile - Cork Tile - Linowall Wall Covering

● Long-lasting, easy-to-clean floors of Armstrong's Linoleum do a display job in the Altman & Kuhne Candy Shop on Fifth Avenue, New York. The colors are No. 27 Black Plain Linoleum and No. 032 Ivory Marbelle Linoleum. Contractors: Ross-Frankel, Incorporated. Designers: Gruenbaum & Krummeck.

DOUBLE CAPACITY with the new **IMPERIAL** "Floatless" SUMP PUMP

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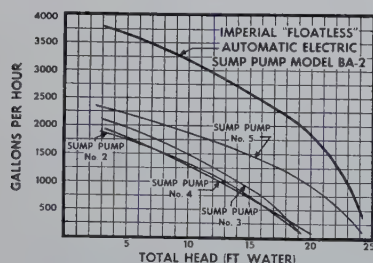
—and you get this added capacity at no extra cost to your clients

● The new high capacity Imperial "Floatless" Sump Pump actually handles twice the volume ordinarily handled by sump pumps of similar horsepower and price.

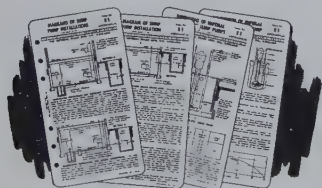
This greatly increased pumping capacity gives you two very important advantages: (1) It enables you to double your safety factor on ordinary installations. (2) It enables you to specify a low cost pump in many cases where a higher priced one formerly was necessary to provide sufficient capacity.

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Write for your set

You will also find specification information in Section 27, Catalog 30 of Sweets.

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CHAMPIONS LAW

The fate of a registration law for Massachusetts architects appears to be undecided as this is written, though a number of contrasting influences have worked to make the fight for registration a memorable effort.

Coincident with the bill's introduction and public hearing, along with an unparalleled display of professional and newspaper interest, came the distressing municipal "kick-back" scandal at Cambridge, Massachusetts. Here the successful prosecuting attorney, *Robert Fiske Bradford*, a lineal descendant of the Plymouth Colony's first governor, unearthed an unsavory condition which may not be peculiar to the place of its discovery, but which seemed to howl for the extra control over practitioners that a registration law would help to achieve. The testimony of a number of architects aided in the convictions, and it is significant that these architects were not granted immunity.

Thinking that District Attorney Bradford, who has a notable background in public and private activities, would have a valuable opinion relative to the registration bill, *John T. Whitmore*, President of the Massachusetts State Association of Architects, requested a statement and received the following reply.

Dear Mr. Whitmore:

Thank you for your letter of April 22 with reference to House Bill 1857. A profession

* * * * *

ROBERT G. INGLESON

In Columbus, Ohio, *Robert G. Ingleson* died recently following an illness of a year. He was 73 years old and had practiced in Columbus for 20 years, going there from Cleveland. He was also active in fraternal affairs.

HARRY WILCOX WACHTER

We are advised of the death of *Harry Wilcox Wachter*, Architect, of Toledo, Ohio, following a prolonged illness. He was 72 years old.

A native of Toledo, Mr. Wachter studied architecture at Columbia University following graduation from Toledo Schools. In a long career which began in the office of *D. L. Stine*, he designed a number of the well-known buildings of his native



Courtesy of Boston Globe

ROBERT F. BRADFORD

as tinged with the public interest as that of the architect should be given the power and authority to enforce and maintain its standards of conduct. This would seem a wise precaution, not only from a public standpoint, but also in fairness to the overwhelming majority of honorable and conscientious members of the profession. Such a bill as that sponsored by your Association may well be an effective step in this direction.

Very truly yours,

Robert F. Bradford

District Attorney

city. In recent years his son, *Horace Wachter*, has been associated in his practice.

HAROLD WADE DOTY

Notice of the death of *Harold Wade Doty*, Architect of Portland, early in March has been received from the Oregon Chapter, A.I.A., of which Mr. Doty was a Past President and one of the most active officers.

He was considered one of the principal residential architects of Oregon and was admired for his work and his personal abilities. Mr. Doty was never confined to his own practice but gave a great deal of time to advancement of civic enterprises concerned with art and architecture. He was particularly interested in housing problems and in the proposed Portland City planning.

COMPETITIONS

TWO PRIZEWINNERS

The American Academy in Rome has announced the award of two \$1,000 prizes to *Nicolas Carone*, of Hoboken, winner of the painting competition, and *William Talbot*, Creve Coeur, Missouri. Carone has studied at the National Academy of Design, Art Students League and Leonardo da Vinci Art School. Talbot has studied at the Demetrios School in Boston and is now a student at Pennsylvania Academy of Fine Arts, Philadelphia. Both the prize-winners are 23 years old.

McKIM GRANT

The *McKim Fellowship*, \$1,800 for travel and study, bestowed every three years by the Columbia University School of Architecture, has been awarded to *Rockwell K. DuMoulin*, Architect, of Providence, R. I., for continued research in rammed earth construction, it is announced by Dean Leopold Arnaud.

"Considerable interest is again being manifested in this type of construction both by the United States Government and by private contractors because it requires no skilled labor and little equipment, making it adaptable to low cost housing projects," Dean Arnaud points out.

BRIDGE AWARDS

The Thirteenth Annual Awards for the most beautiful bridges built of steel during the year were announced by the American Institute of Steel Construction as follows:

Class A — Most beautiful monumental bridge: *Susquehanna River Bridge*, between Havre de Grace and Perryville, Maryland; Class B — Most beautiful medium-sized bridge: *Dunnings Creek Bridge*, on the Pennsylvania Turnpike in Bedford Township, Pennsylvania; Class C — Most beautiful small bridge: *Klamath River Bridge*, at Orleans, California; Most beautiful movable bridge: *Oceanic Bridge*, over Navesink River between Locust Point and Rumson, New Jersey.

The announcement of these awards was made at a dinner extended the Jury of Award and the participants at the Engineers' Club. Only steel bridges completed and opened to traffic during 1940 were eligible.

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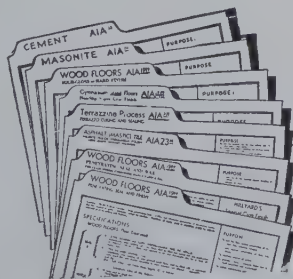
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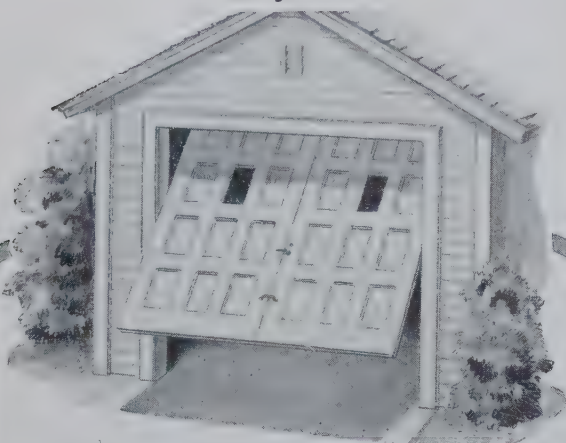
SECTION 17, PAGE 34
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*Upward-acting...
fits any pair of
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An upward-acting hardware set that fits any pair of doors not exceeding 250 pounds in weight; 8' to 8'5" wide, 7' to 8' high, 1 $\frac{3}{8}$ " to 1 $\frac{3}{4}$ " thick. Other sizes on special order.

Particularly useful where design or decoration to conform with architectural style requires construction of special doors. Practically no head room required.

Doors open easily. Heavy springs do the lifting, with only a slight starting pull.

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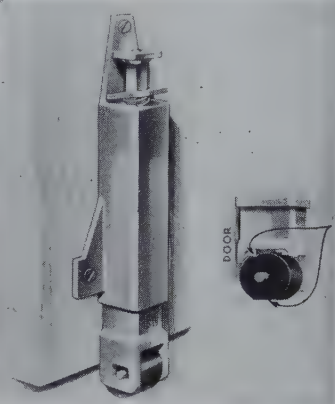
HARDWARE FOR CAREFREE DOORS

NEW PRODUCTS

NEW RICHARDS-WILCOX DOOR HARDWARE

To eliminate the hazards and inconveniences of swing doors that will not stay put, the Richards-Wilcox Manufacturing Company, Aurora, Ill., has developed a new and different type of door holder.

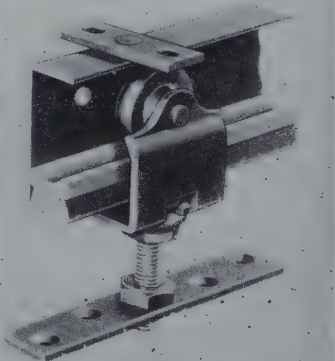
Known as the RolR-Wedg, this door holder, it is stated, does exactly what the name implies—any slight movement of the door in either direction causes a roller to wedge between the floor and the metal edge of a plunger. This action obviates any racking of the door or hinges. It is necessary only to push the plunger far enough down so the rubber roller comes in contact with the floor. This can be done with only the slightest pressure. Yet the door cannot be budged when the mechanical action of the RolR-Wedg takes place.



The design of this new door holder is modernistic so that it is not unsightly when applied to any door of any room. It is made of die cast metal in either a bright polished bronze finish, chromium, bright polished brass, brushed polished brass, dead black or polished natural finish.

The company has also developed a new, smaller, lighter type of hardware that makes it possible to hang light weight vanishing doors in a standard 2" x 4" studded wall. It can also be used on residential parallel wardrobe doors, in bedrooms.

These new small hangers weigh only 1 $\frac{1}{2}$ lbs. per pair and are noiseless in operation. They have a single wheel. The hanger plate is $\frac{7}{8}$ in. wide and can be used for doors as thin as $\frac{7}{8}$ of an inch. The track on which these small hangers operate weighs only 1 lb. per foot. It is formed of sheet steel with a heavy wood runway permanently clinched into position. A concave groove in the wood runway causes the hanger to center itself at all times.



REYNOLDS METALS ANNOUNCES NEW BUILDING PARTITION

Building partitions in which all materials, with the exception of plastering supplies, are designed, fabricated and shipped to the job as a complete unit, is the latest development of the Reynolds Metals Company, Richmond, Va.

The new product is a two-inch, hollow core, lightweight partition system called Reyn-O-Wall, and will

(Continued on page 70)

• FORMICA *for Theater Walls, Doors, Paneling..*

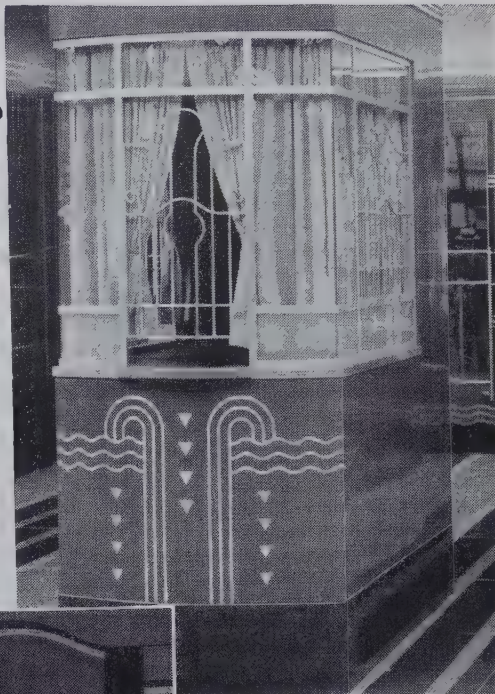
THEATERS are made more attractive by Formica sheets used for surfaces. This plastic material is very hard and durable, easily cleaned and maintained, and extremely colorful and decorative.

There are more than 70 colors, and inlays in color and metal make the widest variety of decoration possible. So striking theatrical effects have been attained with it by leading theatrical architects.

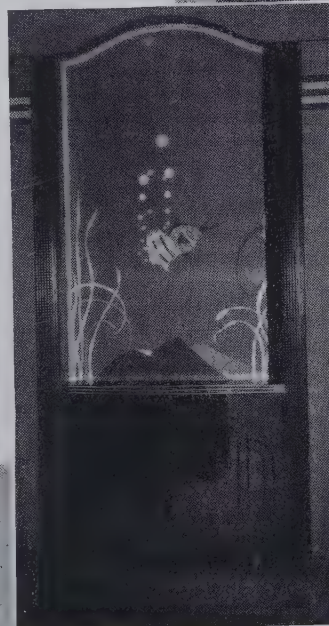
Formica is not brittle and will not chip or crack. It is inert chemically and will not spot or stain with ordinary cleaning solutions. It can be washed with soap and water or cleaned with alcohol or other solvents if that is necessary.

Once Formica has been installed the surfaces do not need to be refinished and maintenance is practically nothing for many years. In hundreds of fine new and in remodeled theaters Formica has been used for many purposes.

The Formica Insulation Co.
4620 Spring Grove Ave., Cincinnati, O.



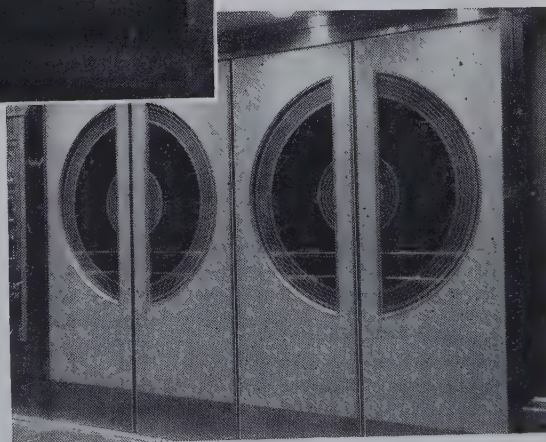
• Red Formica Box office paneling with black base and silver inlays at the Grand Theater, Cincinnati.



• Formica fluorescent panel which glows in "black light" behind a drinking fountain in the Farragut Theater, Brooklyn, N. Y. John & Drew Ebersson, architects.



• Lobby wall paneling is one of the effective uses of Formica in theaters.

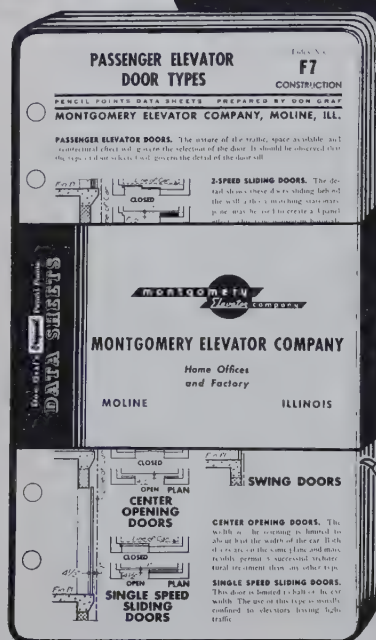


• Formica doors of many colors and with elaborate inlays are available for theater entrances.

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(Continued from page 68)

be marketed through the company's regular sales channels. Simplified erection is claimed as an outstanding advantage of this new type of partition wall, which is made of a core of membrane sheets securely attached to each other. The core is reinforced on both sides with galvanized steel ribs.

Fire-resistant and sound deadening, it is especially suitable for use in apartment houses, hotels, office buildings, post offices, schools and hospitals, and because of its low initial installed cost, is recommended highly for use in low cost housing projects.

NEW ASPHALT ROOFING SHINGLE

Timbergrain, a new form of asphalt roofing shingle having an unusually realistic appearance of weathered wood-grain, has been introduced by The Ruberoid Co., New York, N. Y.

The shingle is unique, it is stated, in that a very rough rugged effect is obtained by a special manufacturing process which builds up the surface in layers of asphalt and colored mineral granules. This results in a greater degree of massiveness and rough textured appearance.



The faithful reproduction of a weathered roof surface is further enhanced by the color distribution of the mineral granules to obtain soft, two-tone combinations, called Greentone, Bluetone, Redwood, and Slatetone blends. The effect of light and shadow is further heightened by extra thick butts and by deep black built-in shadow lines which accentuate the surface texturing.

The advantages claimed in addition to attractive appearance are long life due to extra thickness of the shingle, also fire resistance and moderate cost.

NEW LIGHT SHADE CEMENT

The Missouri Portland Cement Co., St. Louis, Mo., has announced commercial production and distribution of an economical new light shade cement, known as Verilite.

Because of its extreme lightness in color and because of its economy, Verilite can be widely used on commercial, industrial and institutional buildings for architectural concrete such as art marble, cast stone, floors, ramps, stairs, terrazzo and walls. It also has a wide range of uses in home construction, such as art marble, cast stone trims, driveways, floors, mortars, pools, porches, steps, stucco and walks. Municipal departments will find Verilite economical to use in constructing bridge heads, center lane markers, curbing, safety islands, slow traffic zones, traffic signal towers, warning zones and swimming pools.

Verilite easily accepts pigmentation when colored concrete or mortar is desired.

(Continued on page 72)



WHAT PRICE INSTALLATION?

The more you consider the cost of genuine drop-forged Von Duprin devices on the door, ready to operate, the more enthusiastically you specify them.

Installation cost is seldom stressed in selling the devices, for it is far less important than their complete safety and remarkable durability.

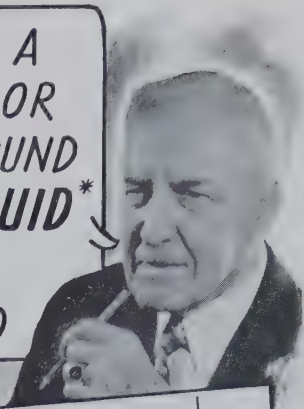
Yet it is worth remembering that Von Duprins are easily and quickly applied to either new or old buildings. The patented Von Duprin construction, giving complete flexibility between the case and the vertical rods, permits quick application even on badly warped doors. There is none of the cutting and fitting so often found necessary.

A little investigation of the cost on the door may convince you that it pays to install drop-forged Von Duprins, even on buildings with only a few years of useful life.

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Scientific Laboratory tests reveal that LAPIDOLITH LIQUID has at least 100% lower surface tension than any other comparable treatment. This means LAPIDOLITH LIQUID will penetrate quicker and deeper into the concrete, producing a much more thorough chemical hardening result—and this result is permanent!

Write for complete details concerning LAPIDOLITH LIQUID "on the job" performance. Also see data on LAPIDOLITH LIQUID in Sweet's Catalog, page 5/24.

LAPIDOLITH LIQUID is flushed on finished concrete.

* U. S. Patent # 2203302

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ONE Time Treatment, Economical
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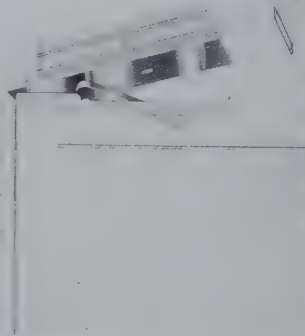
(Continued from page 70)

NEW CONTROL FOR DOUBLE ACTING DOORS
Recently introduced by Norton Lasier Co., Chicago, Ill., is a new LCN overhead concealed closer for the larger double acting doors in public and commercial buildings.

This closer, known in its two sizes as LCN "644 and 666," is concealed in the head frame and top of the door. For maximum power and control the closer employs a double acting lever arm which folds into the door in the closed position. For protection of nearby walls, fixtures, glass, etc., a back-checking action slows up the door's opening swing as desired. A hold-open feature (optional) within the closer itself holds the door in the open position, by neutralizing the closing power at source, when that is desired.

To compensate for drafts the inswinging adjustment of this closer may be set independently of the outswinging adjustment. The door is made to close quietly to center; to avoid "flip-flap" as commonly seen in double acting doors; and to maintain the closed position against drafts tending to blow it open. At bottom the door rests on a ball-bearing pivot, furnished with the closer. The pivot may be used with or without a threshold.

The new closer is equally adaptable to wood or metal construction; and its door parts are designed particularly for installation in the top and bottom fittings of the newly popular all-glass doors.



NEW 20 SMITH-MILLS BOILER

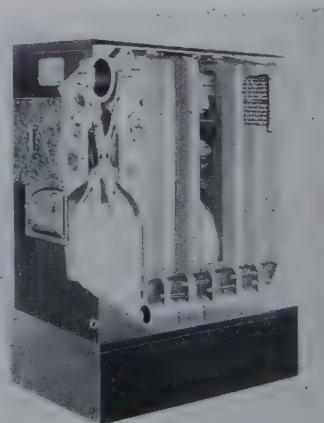
Having introduced in 1939 the 15 Mills boiler for small homes, and in 1940, the 25 Mills for large homes and small commercial buildings, the H. B. Smith Co., Inc., Westfield, Mass., has now completed the Smith-Mills line of modern heating units by placing on the market the new No. 20 Smith-Mills which is suitable for use in medium-sized homes, service stations, diners, and small store buildings.

It is manufactured in models for oil firing and for stoker operation. A hand fired model will be introduced a little later in the season. Ratings run from 675 sq. ft. installed steam radiation to 1275 sq. ft. Water boiler ratings run from 1080 sq. ft. to 2040 sq. ft.

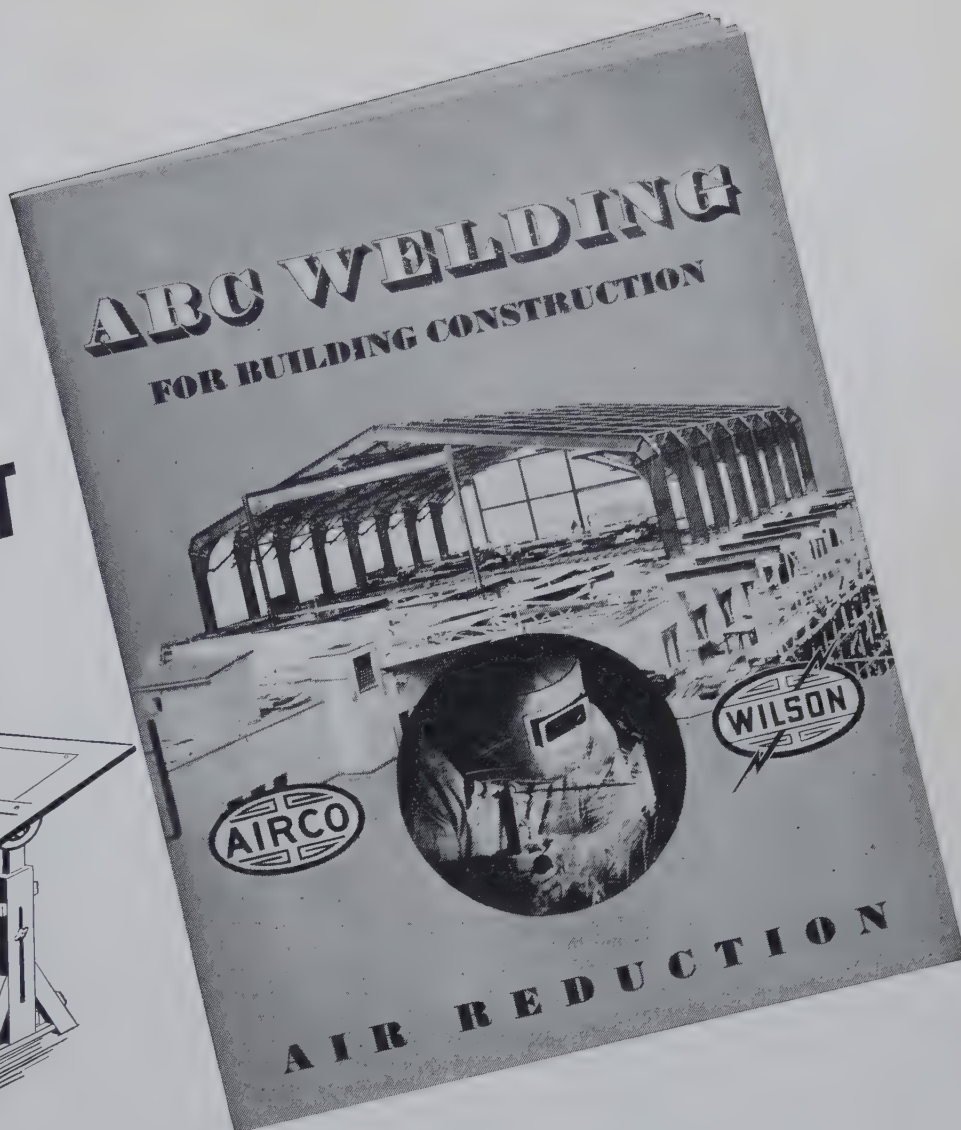
Particular care has been given to make provision for widely different types of domestic hot water loads and a number of different size built-in tank and tankless heating are available for use with this boiler for summer as well as winter hot water supply.

As this boiler has not only horizontal, but also vertical and lateral flues, there is said to be a very high proportion of heat transfer.

(Continued on page 74)



**LET THIS
HELPFUL
BOOKLET**



...be your silent partner in design

Fundamentals of design for welded structures receive important attention in this useful booklet prepared to assist architects, designers and builders. Written by men who have specialized in welded building construction, the book gives many valuable hints in what to look for, what to avoid, what to take advantage of and what must be provided for. Various types of welded joints, for both shop

and field construction, are illustrated. The speed, economy and other important advantages of welded construction are discussed in detail; and as an example of the practical application, the welding of New York's new airlines terminal is described.

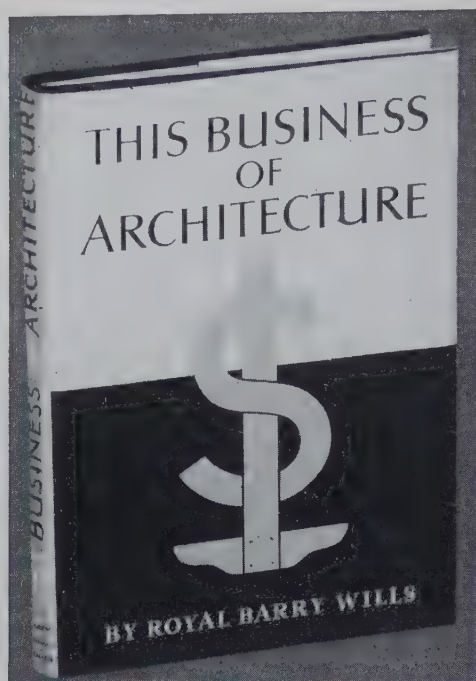
Copy of this book will be sent upon request on your company letterhead.

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THE PRACTICAL WISDOM that grew from dealing with perhaps thousands of clients, contractors, bankers, and others in the building field permeates this book and makes it of great value to any architect, young or old, who wants to increase his chance of success in the practice of architecture.

The *raison d'être* of the book is well expressed in Mr. Wills' foreword, in which he says:

"There have been architects for five thousand years, yet the heritage of their accumulated experience does not spell the answer to success in the world of today. Why? Because the practice of architecture has been forced to take a course in business and to accept efficient, aggressive organization as the price of survival.

"The architect is still a professional and always must be; it is one of the strongest arguments in his favor, but now his ancient lineage has also to be infused with the technic of a business man. It is not an easy transition to make, and yet there is no other way to succeed amidst intense competition from within and without the profession.

"Few architectural schools touch upon the subject and treatises on professional practice avoid it as the plague, so the burden of the teaching has been left to bitter experience, a dear teacher in the worst sense.

"*This Business of Architecture* now steps into the breach in an attempt to do at least a little something towards clarifying the situation, towards showing how to get a job and to make a reasonable profit as well.

"It is written for those on the threshold of practice more particularly, but may very well hold an interest for men of wider experience."

The book contains 210 pages, 5 $\frac{3}{4}$ " x 8 $\frac{1}{2}$ " and is written in a fluent and readable style, well-seasoned with pointed humor.

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(Continued from page 72)

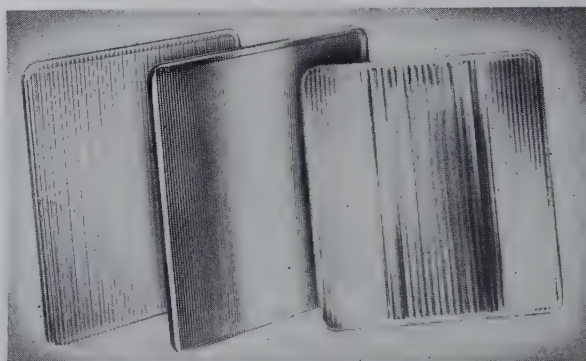
tion of direct heating surface. Fins have been placed where gases are hottest in order that additional heat may be absorbed. Construction is of cast iron to assure low maintenance costs and long life.

FLUORESCENT LIGHT CONTROL WITH CONTROLLENSES

The means are now available for controlled fluorescent lighting according to the Holophane Co., Inc., New York, N. Y., which is manufacturing three prismatic glass lenses known as fluorescent Controlenses. These Controlenses, when used with fluorescent fixtures, meeting the optical design specifications established by the Holophane Engineering Department, will produce three basic lighting distribution patterns.

The first, known as the Intensive Controlens, produces the distribution of light most commonly used in both commercial and industrial interiors—normal uniform spacing lighting of horizontal surfaces in rooms of normal height.

The second, Concentrating Controlens, produces a rigidly confined focusing type of light distribution. This lens has several common applications—accent lighting, general illumination from great mounting heights, or offset beam lighting.



The third, the Extensive Controlens, is particularly adaptable for areas where the lighting of vertical surfaces is desired or in low ceiling areas to permit economical wide spacing of units.

Complete fluorescent lighting fixtures using Holophane Controlenses are available from a number of nationally known and reputable fixture manufacturers. These fixtures are for three types of installation, recessed flush-with-the-ceiling, close up to the ceiling, and for suspension mounting. These fixtures are designated as Controlens fixtures and these manufacturers are known as Controlens manufacturers. Their names will be supplied to interested parties upon request.

These Controlenses and fixtures are applicable in all lighting fields—industrial, commercial and institutional.

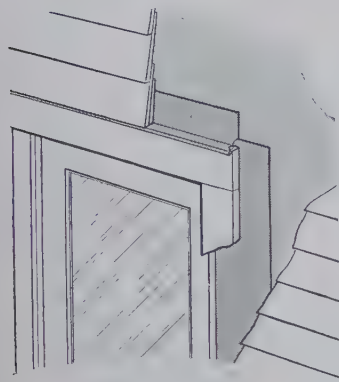
NEW FLOOR FINISHER

The H. F. Myers Paint Co., Inc., 536 West 111th St., New York, is offering a new floor finisher and maintenance product, called Form-A-Seal which can be applied directly to floors, after they have been sanded smooth and cleaned.

Applied with a lamb's wool applicator the sealer is worked into the surface so that the floor looks moist but not puddled. After allowing thirty minutes for the drying, setting; buffing the surface while still damp with a fine steel wool attached to polishing machine completes the job.

This product is used in place of varnish and shellac. It is said to give the floor a beautiful sheen, prevents slipping, shows no scratches, dirt-free and is usable on hard wood or soft, cork tile, wall paneling, etc.

WHEREVER YOUR JUDGMENT SUGGESTS **COPPER**



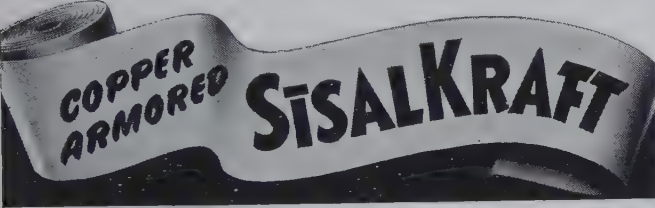
Illustrating one of the many concealed applications for which Copper-Armored SISALKRAFT is practical. Write for complete data file.

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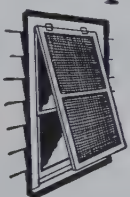
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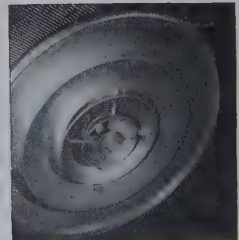
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INDEX TO ADVERTISERS

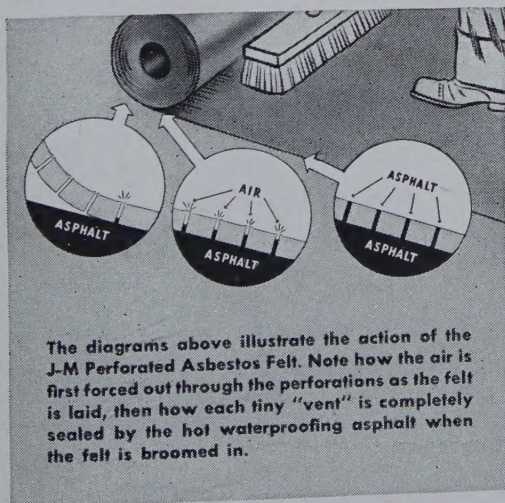
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Adam, Frank, Electric Company	29
Air Reduction Sales Company	73
Aluminum Company of America	5
American Brass Company	Second Cover
American Pencil Company	22
American Plywood Corporation	46
American Rolling Mill Company, The	30
American Seating Company	4
Andersen Corporation	6
Anemostat Corporation of America	75
Armstrong Cork Company	13, 65
Arrow-Hart & Hegeman Electric Company, The	Third Cover
Barber Asphalt Corporation	20
Barber-Colman Company	14
Brunswick-Balke-Collender Company	55
Cabot, Samuel, Inc.	10
Congoleum-Nairn, Inc.	47
Curtis Companies Service Bureau	27
Dixon, Joseph, Crucible Company	39
Douglas Fir Plywood Association	51
Eagle Pencil Company	31
Faber, A. W., Inc.	60
Flintkote Company, The	49
Formica Insulation Company, The	69
Grinnell Company, Inc.	45
Hillyard Sales Company	67
Hoffman Specialty Company	61
Holliston Mills, Inc.	64

Imperial Brass Manufacturing Company	66
Ingersoll Steel & Disc Division, Borg-Warner Corporation	57
Johns-Manville Corporation	23, 77
Koh-I-Noor Pencil Company	63
Koppers Company	53
Maple Flooring Manufacturers Association	54
Medusa Portland Cement Company	7
Mesker Bros. Iron Works	52
Milcor Steel Company	78
Minneapolis-Honeywell Regulator Company	Back Cover
Montgomery Elevator Company	70
Muralo Company	50
National Door Manufacturers' Association	75
Norton Lasier Company	46
Pittsburgh Plate Glass Company	21, 55, 59
Portland Cement Association	19
Raymond Concrete Pile Company	8
Reinhold Publishing Corporation	74
Republic Steel Corporation	15
Rixson, Oscar C., Company, The	48
Rolscreen Company	62
Rosenthal Company, The	63
Sisalkraft Company, The	75
Sonneborn, L., Sons, Inc.	72
Standard Pressed Steel Company	58
Stanley Works	68
Timber Engineering Company	24
Truscon Steel Company	32
Universal Atlas Cement Company	17
U. S. Gypsum Company	41, 42, 43, 44
U. S. Steel Corporation Subsidiaries	17
Vonnegut Hardware Company	71
Warren Webster & Company	1
Weyerhaeuser Sales Company	18
Youngstown Sheet & Tube Company	11
Zurn Manufacturing Company, J. A.	2, 3

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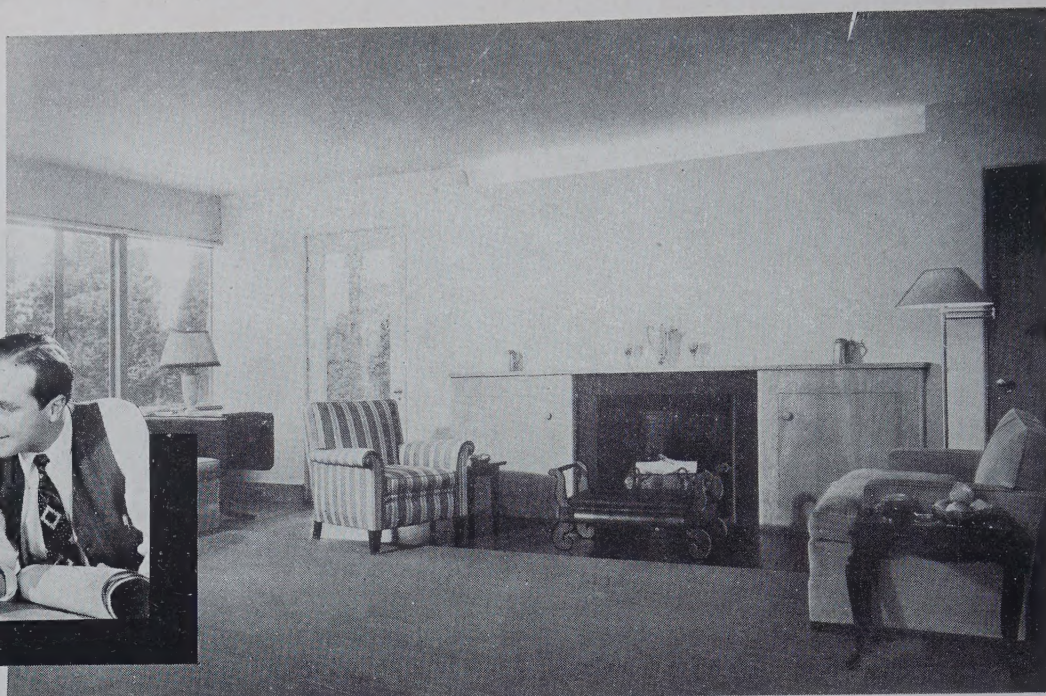
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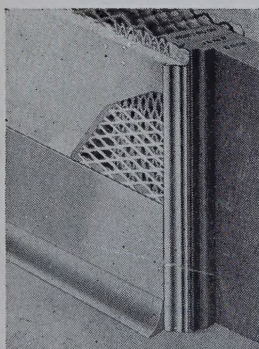
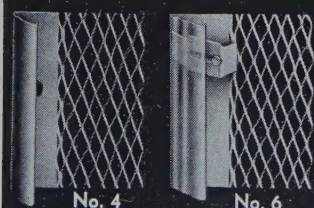


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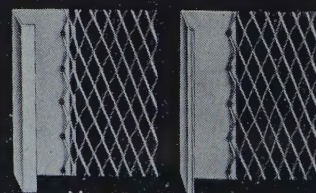
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